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SOFTWARE AND DEVELOPMENT TOOLS

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HOW THIS SELECTOR GUIDE IS ORGANIZED

This selector guide presents software and development tool information that corresponds to specific selector guides in the SG1000 series. These sections include the following:

- 32-Bit Embedded Processors (SG1001/D)
- Analog (SG1002/D)
- Digital Signal Processors (SG1004/D)
- Microcontrollers (SG1006/D)
- Network and Communications Processors (SG1007/D)

68K, ColdFire, MPC5xx, PowerPC ISA, and MCORE — Metrowerks

Product	Description	Target Support	RTOS Support	Board Support	Host-Target Interface	Host Platforms	Language Support	Compiler Output Formats
CW68K	CodeWarrior Software Development Tools for 68K Embedded Systems	68xxx, MC68360, MC68SVZ328, MC68VZ328, MC68EX328	PPSM, RTXC, ATI	DragonBall EZ; DragonBall VZ; ADS68360; DragonBall Super VZ	MetroTRK; P&E Microcomputer CPU32 BDM Cable	Windows 98/ 2000/ME/NT	C/C++, 68000 Assembly	ELF/DWARF
CWCF	CodeWarrior Software Development Tools for ColdFire Embedded Systems	MCF5206e; MCF5307; MCF5407; MCF5272	Precise-MQX, Lineo-RTXC, Blunk-Target OS, KADAK-AMX, Micro Digital-SMX, ATI-Nucleus Plus	M5206e LiteC3; M5307C3; M5407C3; M5272C3	P&E Microcomputer ColdFire BDM Cable	Windows 98/ 2000/ME/NT	C/C++, ColdFire Assembly	ELF/DWARF
CWEPPC	CodeWarrior Software Development Tools for PowerPC ISA	MPC555, MPC561, MPC562, MPC563, MPC564, MPC565, MPC566, MPC7xx, MPC7410, MPC8xx, MPC82xx, MPC821, MPC823e, MPC850, MPC860, MPC8240, MPC8260, PPC603, PPC603ei, MPC7400, MGT5100	QNX Neutrino; RTXC from Lineo; Embedix SDK from Lineo, Precise MQX, ATI Nucleus	MPC8260, ADS-P, RPX Lite, RPX Classic, Motorola FADS MBX , Sandpoint, Cognet CMA 102, Axiom 555, Motorola ETAS555, Eximer, AMC Eval	MetroTRK, Applied Microsystems CodeTAP, Applied Microsystems PowerTAP, Applied Microsystems WireTAP Run Control Interface (JTAG and BDM (8xx only), Macraigor Systems COP Raven (for MPC82xx and PPC6xx), Macraigor Systems BDM Raven (for MPC8XX, MPC5xx), Abatron BDI 2000 (5xx, 8xx), Agilent ES900B Emulation Probe (all processors), P&E Wiggler BDM	Windows 95/98/ 2000/ME/NT	C/C++, EC++, and PowerPC ISA Assembly	ELF/DWARF 1.0; Motorola S-Record
CWMCORE	CodeWarrior Software Development Tools for MCORE	M2xx/3xx family processors		MMC2001; MMC2075/ 2080; MMC2107, MMC2103, MMC3401	MetroTRK; Metrowerks EBDI	Windows 95/98/ 2000/NT	C/C++, Assembly	ELF/DWARF 1.0; Motorola S-Record

Other Software

Company	Product Name	Product Type
Bytecodes	Embedded Bytecode Interpreter	Optimized Java Virtual Machines
Counterpoint Systems Foundry	IrLite Development Kit	Infrared communications SDK
Precise Software Technologies	Various	Embedded I/O components
Grammar Engine	PromICE	Firmware development
Inverness Systems	ATIC	ATM protocols and applications
Micro APL	PortAsm	Porting tools that implement the PowerPC architecture (Note)
Pacific Softworks	Fusion	Internet protocols for Embedded Solutions
Sun Consumer Electronics	Internet Software Solution	Embedded internet software
Total Impact	Total PowerSMPPCI	Multiprocessing application accelerator
US Software	USNET	Real-time embedded TCP/IP
Wind River	SystemsWind	ViewSystem visualizer for embedded software

Note: Check with tool vendor for specific derivative support.

Metrowerks

Product	Description	Target Board	Power Supply	Schematic	Documentation	Interface Board	RTOS Support
MPC823FADS	MPC823 FADS Board	•	•	•	•	•	•
MPC850SRFADS	MPC850 FADS Board	•	•	•	•	•	•
MPC8260ADS-P	MPC8260 FADS Board	•	•	•	•	•	•
MPC860FADS	MPC860 FADS Board	•	•	•	•	•	•
MPC860TFADS	MPC860 TFADS Board	•	•	•	•	•	•
MMCEVB1200PV	MMC2001 Low Cost Evaluation	•	•	•	•		
MMCEVB1200PV-A	MMC2001 Low Cost Evaluation Academic	•	•	•	•		
MMCCMB1200	MMC2001 Development Platform	•	•	•	•		
KITEVSMMC1200	MMC2001 High Performance System	•	•	•	•	•	
MMCEVB2107	MMC2107 Low Cost Evaluation	•	•	•	•		
MMCEVB2114	MMC2113/2114 Evaluation Board	•	•		•		•
MMCCMB2107	MMC2107 Development Platform	•	•	•	•		
MMCCMB2114	MMC2113/2115 Development System	•	•		•		•
KITEVSMMC2107	MMC2107 High Performance System	•	•	•	•	•	
KITEVSMMC2107	MMC2107 Complete Development System	•	•	•	•		
M5206EC3	MCF5206E Development System	•		•	•		•
M5307C3	MCF5307 Development System	•		•	•		•
M5407C3	MCF5407 Development System	•		•	•		•
M5272C3	MCF5272 Development System	•		•	•		•
M5249C3	MCF5249 Development System	•		•	•		•
MPC564EVB	MPC564 Evaluation Board	•	•	•	•		•
MPC566EVB	MPC566 Evaluation Board	•	•	•	•		•

Host and Communication Processors

Company	Product Name	Motorola Products Supported
3M	Interconnects & Socket Adapters	Products that implement the PowerPC architecture (Note)
AMP	Interconnects & Socket Adapters	Products that implement the PowerPC architecture (Note)
Applied Microsystems	SuperTAP, CodeTAP, NetROM	MPC821
ASIC Designs	PowerPAQ Handheld Reference Platform	MPC821/823
Atlas Communication Engines	ACE860 Internetworking System	MPC821/823
Cogent Computer Systems	MPU Development Platform	603e, 604(e), MPC505/509, MPC801/821/823/850/860
Digital Logic Instruments (DLI)	Personal Line and proLine Logic	MPC5xxMPC8xx analyzers
DY 4 Systems Embedded Support	S/DMV VMEbus Evaluation Boards	603e, 604e, MPC801/821/823/850/860
Tools (ET) Emulation Technology	BGA Socket/Probing System	Products that implement the PowerPC architecture (Note)
EmuTec	PROMJet and DebugJet Emulators	Products that implement the PowerPC architecture (Note)
Hewlett-Packard	Emulators, Logic Analyzers	Products that implement the PowerPC architecture (Note)
Huntsville Microsystems	Series 200/1000/2000 ICE, Background Mode Debuggers	MPC5xx, MPC8xx
Lauterbach	TRACE32-ICE	MPC505/509, MPC821/860, MPC5xx Family
Macraigor Systems	Serial BDM Wiggler	MPC5xx, MPC8xx
Methode Electronics	Interconnects & Socket Adapters	Products that implement the PowerPC architecture (Note)
Microtek International	MICEpack-J BDM	MPC860
P&E Microcomputer Systems	Contact vendor	MPC555
Radstone Technology	VME single board computers	603e, 604e
Smart Modular Technologies	SMARTengine/603PCI	603e
Tektronix	Oscilloscopes, Logic Analyzers	Products that implement the PowerPC architecture (Note)
Tundra Semiconductor	QSpan PCI Bus Bridge	MPC821/860
V-I Computer	PowerPC ISA single board computers	603e, 604e
Vista Controls	SCORE 603	603e

Note: Check with tool vendor for specific derivative support.

32-BIT EMBEDDED PROCESSORS (continued)

DEVELOPMENT SYSTEMS

Metrowerks

Product	Description	RTOS Support	Debug Interface	Serial Cable	CD ROM	User Manuals	Power Supply	Host Platforms
CWDEVSYS5272	CodeWarrior Development System for ColdFire MCF5272 (1) (2)	•	•	•	•	•	•	Windows 95/98/2000/NT
CWDEVSYSMCF5407	CodeWarrior Development System for ColdFire MCF5407 Edition (1) (2)	•	•	•	•	•	•	Windows 95/98/2000/NT
CWDEVSYS823FADS (2)	CodeWarrior Development System for MPC823	•	•		•	•	•	Windows 95/98/2000/ME/NT
CWDEVSYS850FADS (2)	CodeWarrior Development System for MPC850	•	•		•	•	•	Windows 95/98/2000/ME/NT
CWDEVSYS860FADS (2)	CodeWarrior Development System for MPC860	•	•		•	•	•	Windows 95/98/2000/ME/NT
CWDEVSYS860TFADS (2)	CodeWarrior Development System for MPC860T	•	•		•	•	•	Windows 95/98/2000/ME/NT
CWDEVSYS8260AMC (2)	CodeWarrior Development System for MPC8260	•	•		•	•	•	Windows 95/98/2000/ME/NT

(1) 12-month support plan available
(2) Contact Metrowerks for more information

CABLES AND HOST-TARGET INTERFACES

Metrowerks

Product/Part Number	Description	Target Support	Connection Device	Power Supply
CWWIRETAPBDM	AMC's WireTAP Run Control Interface (BDM)	—	—	—
CWWIRETAPJTAG	AMC's WireTAP Run Control Interface (MPC6xx, 7xx, 82xx, 74xx)	—	—	—
MMC14EBD102	Enhanced Background Debug Interface	—	—	—

THIRD PARTY TOOLS

Compilers

Company	Product Name	Motorola Products Supported
Green Hills Software	Optimizing Compilers	Products that implement the PowerPC architecture (Note)
Metaware	High C/C++ Cross Toolset	6xx, MPC5xx, MPC8xx
Mentor Graphics (Microtec Division)	C & C++ Compilers	603(e), 604(e), MPC505, MPC801/821/860
Microware	FasTrak v2.1 IDE	Products that implement the PowerPC architecture (Note)
TASKING	EDE, C/C++/EC++ Compiler products that implement the PowerPC architecture	

Note: Check with tool vendor for specific derivative support.

Debuggers

Company	Product Name	Motorola Products Supported
Accelerated Technology	XRAY	68K/ColdFire/MCORE products that implement the PowerPC architecture (Note)
Avocet Systems, Inc.	SourceGate II	68K/ColdFire products that implement the PowerPC architecture (Note)
Green Hills Software	MULTI	68K/683xx/ColdFire/MCORE products that implement the PowerPC architecture (Note)
Lauterbach	TRACE32	Products that implement the PowerPC architecture (Note)
Mentor Graphics	XRAY	603(e), 604(e), MPC505, MPC801/821/860
TASKING	CrossView Pro	Products that implement the PowerPC architecture (Note)
Wind River Systems	Tornado	Products that implement the PowerPC architecture (Note)

Note: Check with tool vendor for specific derivative support.

Chip Drivers

Company	Product Name	Motorola Products Supported
Aisys	DriveWay	MPC821/850/860
Embedded Concepts and Solutions	NA	6xx, 7xx, MPC8xx
Inverness Systems	NA	MPC860
Precise Software Technologies	NA	Products that implement the PowerPC architecture (Note)
Target Technologies	NA	MPC860

Note: Check with tool vendor for specific derivative support.

Real Time Operating Systems and Kernels

Company	Product Name	Motorola Products Supported
Accelerated Technology	Nucleus +	68K/683XX/ColdFire/MCORE/PowerPC
CMX	CMX-RTX	Products that implement the PowerPC architecture (Note)
Enea OSE Systems	OSE Real-Time Kernel	Products that implement the PowerPC architecture (Note)
Etno Team	EOS	MPC5xx
Express Logic	ThreadX	Products that implement the PowerPC architecture (Note)
Green Hills Software	Integrity, VelOSity	Products that implement the PowerPC architecture (Note)
JMI Software SYS	C Executive, PSX	Products that implement the PowerPC architecture (Note)
KADAK Products	AMX	Products that implement the PowerPC architecture (Note)
Lynx Real-Time SYS	LynxOS	603, 603e, 604, 604e, MPC821, MPC860
Mentor Graphics		
Microtec Division	VRTXsa	Products that implement the PowerPC architecture (Note)
Micro Digital	smx Modular RTOS	Products that implement the PowerPC architecture (Note)
Microware Systems	OS-9	Products that implement the PowerPC architecture (Note)
Precise Software TECH.	Precise/MQX	Products that implement the PowerPC architecture (Note)
QNX	QNX RTOS	MPC8xx
Motorola	RTEK	MPC5xx, MPC8xx
Tao Systems	Elate	Products that implement the PowerPC architecture (Note)
US Software	superTask RTOS	Products that implement the PowerPC architecture (Note)
Wind River Systems	VxWorks	Products that implement the PowerPC architecture (Note)

Note: Check with tool vendor for specific derivative support.

Models

Company	Product Name	Motorola Products Supported
Mentor Graphics	Seamless Co-Verification Environment	Products that implement the PowerPC architecture (Note)
Summit Design	Virtual-CPU Co-Verification Environment	Products that implement the PowerPC architecture (Note)
Simpod, Inc.	DeskPOD	Products that implement the PowerPC architecture (Note)
Synopsys	Various	Products that implement the PowerPC architecture (Note)

Note: Check with tool vendor for specific derivative support.

Functional Test and Diagnosis

Company	Product Name	Motorola Products Supported
International Test Technologies	µMaster 4031 (PXI version)	603e, 740, 750, 7400, 8240
International Test Technologies	µMaster 4031 (PCI version)	603e, 740, 750, 7400, 8240

32-Bit Third Party Tools 683xx, MPC500, MCORE, and ColdFire

Company	68300	MPC500	MCORE	ColdFire	Web Address
BDM Support Tools					
Cosmic Software	•				www.cosmic-software.com
Wind River Systems	•	•	•	•	www.wrs.com
Hitex Development Tools	•				www.hitex.com
Agilent Technologies, Inc.	•	•	•		www.agilent.com
iSystem	•		•		www.isystem.com
Lauterbach	•		•	•	www.lauterbach.com
Macraigor Systems LLC	•	•			www.macraigor.com
P&E Microcomputers, Inc.	•			•	www.pemicro.com
TASKING	•				www.tasking.com
Company	**68300**	**MPC500**	**MCORE**	**ColdFire**	**Web Address**
Code Coverage Tools					
Ashling Microsystems		•			www.ashling.com
Cosmic Software	•				www.cosmic-software.com
Wind River Systems	•	•	•	•	www.wrs.com
Green Hills Software	•	•	•	•	www.ghs.com
Hitex Development Tools	•				www.hitex.com
iSystem	•	•			www.isystem.com
TASKING	•		•		www.tasking.com

32-Bit Third Party Tools 683xx, MPC500, MCORE, and ColdFire (continued)

Company	68300	MPC500	MCORE	ColdFire	Web Address
Compilers					
Accelerated Technology Inc.	•	•		•	www.acceleratedtechnology.com
Byte Craft Limited			•		www.bytecraft.com
TASKING	•		•		www.tasking.com
Cosmic Software	•				www.cosmic-software.com
Wind River Systems	•	•	•	•	www.wrs.com
Green Hills Software	•	•	•	•	www.ghs.com
P&E Microcomputers, Inc.	•			•	www.pemicro.com
Company	**68300**	**MPC500**	**MCORE**	**ColdFire**	**Web Address**
Debuggers					
Ashling Microsystems	•				www.ashling.com
Accelerated Technology Inc.	•	•	•	•	www.acceleratedtechnology.com
Wind River Systems	•	•	•	•	www.wrs.com
Green Hills Software	•	•	•	•	www.ghs.com
iSystem	•	•	•		www.isystem.com
Lauterbach	•	•	•	•	www.lauterbach.com
P&E Microcomputers, Inc.	•			•	www.pemicro.com
Company	**68300**	**MPC500**	**MCORE**	**ColdFire**	**Web Address**
Evaluation Boards					
Axiom Manufacturing		•	•		www.axman.com
Arrow	•	•	•	•	www.arrow.com
Avnet	•	•	•	•	www.avnet.com
Future	•	•	•	•	www.future.com
Matrix Design Inc.				•	www.cadreiii.com
Company	**68300**	**MPC500**	**MCORE**	**ColdFire**	**Web Address**
Logic Analyzers					
Agilent Technologies, Inc.	•	•	•		www.agilent.com
iSystem	•				www.isystem.com
Tektronix	•	•	•		www.tek.com/measurement/logic_analyzers/

32-Bit Third Party Tools 683xx, MPC500, MCORE, and ColdFire (continued)

Company	68300	MPC500	MCORE	ColdFire	Web Address
In-Circuit Emulators or Hardware Debug Interface					
Ashling Microsystems	•	•			www.ashling.com
Wind River Systems	•	•		•	www.wrs.com
Hitex Development Tools	•				www.hitex.com
iSystem	•	•			www.isystem.com
Lauterbach	•	•			www.lauterbach.com
Microtek International Inc.	•				www.microtek.com.tw/mice
Company	**68300**	**MPC500**	**MCORE**	**ColdFire**	**Web Address**
Performance Analysis Tools					
Wind River Systems	•	•	•	•	www.wrs.com
Green Hills Software	•	•	•	•	www.ghs.com
iSystem	•	•			www.isystem.com
Company	**68300**	**MPC500**	**MCORE**	**ColdFire**	**Web Address**
Real-Time Operating Systems					
Accelerated Technology Inc.	•	•	•	•	www.atinucleus.com
Lineo	•	•	•	•	www.rtxc.com
ETAS	•	•			www.etasinc.com
Green Hills Software	•	•	•		www.ghs.com
Precise Software	•	•	•	•	www.psti.com
Snap Gear				•	www.snapgear.com
TASKING	•				www.tasking.com
U S Software	•	•		•	www.ussw.com
Wind River Systems				•	www.wrs.com
Company	**68300**	**MPC500**	**MCORE**	**ColdFire**	**Web Address**
Simulation Tools					
Wind River Systems	•		•	•	www.wrs.com
Green Hills Software	•	•	•	•	www.ghs.com
TASKING	•		•		www.tasking.com

ANALOG
DEVELOPMENT SYSTEMS

Development Tools — Communications Application-Specific Standard Products

Product	Description	Key Product	Status	Documentation
MC14LC5480EVK	PCM Codec-Filter Evaluation Kit	MC14LC5480, MC145481, MC145482, MC145483, MC145484	Available	MC14LC5480EVK/D
MC145572EVK	ISDN U-Interface Transceiver Evaluation Kit	MC145572	Available	Note
MC145574EVK	ISDN S/T-Interface Transceiver Evaluation Kit	MC145574	Available	Note
MC145576EVK	ISDN Single-Chip NT1 Evaluation Kit	MC145576	Available	Note
MC145576DRV	Driving Board for the MC145576EVK for Smart NT1 Evaluation	MC145576	Available	Note
Hipster™	Hipster Reference Design for SOHO Router	MC145572, MC145574, MPC850DH	Available	Note

Note: For documentation, go to www.motorola.com/semiconductors, and click on the Tools Library link.

DSP56800 Development Systems - Software

Product	Description	Status
MSW3SDK000AA	Embedded software development kit (SDK) for DSP56800/56800e. Software infrastructure that allows development of efficient, high level software applications that are fully portable and reusable not only across all DSP56800 family processors, but any future SDK supported architectures as well.	Available
CWDSP56800	CodeWarrior Software Development Tools for DSP56800 (Metrowerks)	Available
CWDSP56800E	CodeWarrior Software Development Tools for DSP56800E (Metrowerks)	Available
PP-JTAG	JTAG controller with Printer Port Interface and software supporting production FLASH programming	Available
DSPOSRTOS	DSP OS Real-Time Operating System (RTOS)	Available
DSPOSNET	DSP OS Network Software	Available
RTXC	RTXC Real-Time Operating System (RTOS)	Available
RTXCNET	RTXC Networking Protocol Suite	Available
DSP56852SFP	DSP56852 with Feature Phone Application	Available
DSP56858SFP	DSP56858 with Feature Phone Application	Available

DSP56800 Development Tools - Hardware

Product	Description	Status
DSP56824EVM	Evaluation kit for the DSP56824 processor (Metrowerks)	Available
DSP56F801EVM	Evaluation kit for the DSP56F801 processor (Metrowerks)	Available
DSP56F803EVM	Evaluation kit for the DSP56F803 processor (Metrowerks)	Available
DSP56F805EVM	Evaluation kit for the DSP56F805 processor (Metrowerks)	Available
DSP56F807EVM	Evaluation kit for the DSP56F807 processor (Metrowerks)	Available
DSP56F826EVM	Evaluation kit for the DSP56F826 processor (Metrowerks)	Available
DSP56F827EVM	Evaluation kit for the DSP56F827 processor (Metrowerks)	Available
DSPCOMMPARALLEL	Emulation support for DSP56F80X processors. Requires parallel port. (Metrowerks)	Available
DSPCOMMANDPCI	Emulation support for DSP56F80X processors. Requires PCI slot. (Metrowerks)	Consult Web or Metrowerks for availability of CodeWarrior software support
DSPCOMMETHERNET	Emulation support for DSP56F80X processors. Requires Ethernet network.	Consult Web or Metrowerks for availability of CodeWarrior software support
DSPOSRTOS	DSP OS Real-Time Operating System (RTOS)	Available
ECINLHIVSR	3-Phase Switched Reluctance High-Voltage Power Stage	Available
ECLOVACBLDC	3-Phase BLDC Low-Voltage Power Stage	Available
ECLOVSR	3-Phase Switched Reluctance Low-Voltage Power Stage	Available
ECMTREVAL	Evaluation Motor Board	Available
ECOPT	Optoisolation Board	Available
ECOPTINL	In-Line Optoisolation Box	Available
ECCTR908MR32	MC68HC908MR32 Control Board	Available
ECOPTHIVACBLDC	3-Phase AC BLDC High-Voltage Power Stage	Available

DSP56800E Development Tools - Hardware

Product	Description	Status
DSP56852EVM	Evaluation Kit for DSP56852 Processor	Available
DSPCOMMPARALLEL	Parallel Port Command Converter for DSP	Available
DSPCOMMETHERNET	Ethernet Command Converter for DSP	Available
DSPCOMMANDPCI	PCI Command Converter for DSP	Available
DSPCOMMAND	Universal Command Converter for DSP	Available
DSP56858EVM	Evaluation Kit for DSP56858 Embedded Systems	Available
TDC1	Daughter Card for DSP56858EVM	Available Late Q3/2002

DSP56300 Family and MSC8100 Family

Product	Description	Status
DSPTOOLSCD	DSP56300 Family Simulator/Assembler/Librarian for IBM PC, SUN-4, and Hewlett-Packard Series 700. DSPTOOLSCD is only available as a download from Metrowerks at www.metrowerks.com/embedded/suite56.	—
CDDSP56300/D	DSP56300 Training CD	—
DSP56301ADM	DSP56301 Applications Development Module	—
DSP56301ADSA	DSP56301 Development System for IBM PC	—
DSP56301ADSF	DSP56301 Development System for Sun-4	—
DSP56303EVM	DSP56303 Evaluation Module	—
DSP56L307EVM	DSP56L307 Evaluation Module	—
DSP56309EVM	DSP56309 Evaluation Module	—
DSP56311EVM	DSP56311 Evaluation Module	—
DSP56321EVM	DSP56321 Evaluation Module	—
DSP5636xEVM	DSP5636x Evaluation Module Including Software Debugger and PPL cable	—
MSC8101ADS	MSC8101 Application Development System Board (Metrowerks)	Available
DSPCOMMAND	16-, 24-, 32-bit Command Converter Board which allows the host to talk with DSP target system via OnCE/JTAG port. Either a DSPPCHOST or DSPSUN4HOST is required with the DSPCOMMAND.	—
DSPCOMMANDPCI	Command Converter with PCI Host Interface	—
DSPCOMMETHERNET	Command Converter with Ethernet Host Interface	—
DSPCOMMPARALLEL	Command Converter with Parallel Port Host Interface	—
DSPPCHOST	PC-Compatible Host Interface Board	—
DSPSUN4HOST	Sun-4 Host Interface Board	—
CWDSSTAR8101-WIN	MSC8101 Application Development System for Windows (Metrowerks) (MSC8100 family only)	Available

DSP56300 Family and MSC8100 Family (continued)

Product	Description	Status
CWDSSSTARWIN	Development System with CodeWarrior HTI for Windows (Metrowerks)	Available
CWSTARCOREWIN	CodeWarrior Software Development Tools for StarCore v.1.1 for Windows (Metrowerks)	Available
CWSTARCORESOL	CodeWarrior Software Development Tools for StarCore v.1.1 for Solaris (Metrowerks) (MSC8100 family only)	Available

DSP56300 Family and MSC8100 Family

Tools Description	Partner	Contact
Real-Time Operating System	Eonic Systems Embedded Power Corporation Precise Software Technologies Wind River Systems	www.eonics.com www.embeddedpower.com/ www.lineo.com www.OSE.com www.psti.com www.windriver.com
Integrated Development Environment	Green Hills Software Metrowerks Signalogic TASKING	www.greenhills.com www.metrowerks.com www.signalogic.com www.tasking.com
Optimizing Compilers / Assembler / Linker	Green Hills Software TASKING Wind River Systems	www.greenhills.com www.tasking.com www.windriver.com
Debugger	Domain Technologies Green Hills Software Precise Software Technologies TASKING Wind River Systems	www.domaintec.com www.greenhills.com www.psti.com www.tasking.com www.windriver.com
Simulator	Precise Software Technologies TASKING Wind River Systems	www.psti.com www.tasking.com www.windriver.com
DSP Algorithm Development	Mathworks Hyperception	www.mathworks.com www.hyperception.com
System Simulation and Verification	Cadence Mentor Graphics Synopsys	www.cadence.com/alta www.mentorgraphics.com www.synopsys.com
Hardware Debug Connections/ Analyzers	Corelis/HP Macraigor Systems Signalogic Wind River Systems	www.corelis.com/ www.macraigor.com www.signalogic.com www.windriver.com
Hardware Development Tools	CDA Systems P&E Microcomputer Systems United Electronic Industries White Electronic Designs	www.cdasys.com www.pemicro.com www.ueidaq.com www.whiteedc.com
Device Driver Software	Aisys	www.aisysinc.com

MICROCONTROLLERS
SOFTWARE TOOLS

HC05, HC08, HC11, HC12, HC16, MPC5xx, 568xx, and MCORE — Metrowerks

Product	Description	Target Support	RTOS Support	Board Support	Host-Target Interface	Host Platforms	Language Support	IDE Version
CWHC05ASM	CW ASM Tools for HC05	HC05 family processors (B, BD, C, F, J, JB, JJ, JP, K, KJ, L, LJ, P, PV, SR, SU and X families)		MMEVS, MMDS		Windows 95/98/2000/ ME/NT4.0	Assembly, C/C++, cC++, EC++	4.1.1
CWHC05	CW Full Package for HC05	HC05 family processors (B, BD, C, F, J, JB, JJ, JP, K, KJ, L, LJ, P, PV, SR, SU and X families)		MMEVS, MMDS		Windows 95/98/2000/ ME/NT4.0	Assembly, C/C++, cC++, EC++	4.1.1
CWHC08ASM	CW ASM Tools for HC08	HC08 family processors (AB, AS, AZ, BD, EY, GP, GR, JB, JK, JL, KH, KX, LD, MR, RF, RK and SR families)	Metrowerks OSEKturbo OS HC08		MON08	Windows 95/98/2000/ ME/NT4.0	Assembly, C/C++, cC++, EC++	4.1.1
CWHC08	CW Full Package for HC08	HC08 family processors (AB, AS, AZ, BD, EY, GP, GR, JB, JK, JL, KH, KX, LD, MR, RF, RK and SR families)	Metrowerks OSEKturbo OS HC08		MON08	Windows 95/98/2000/ ME/NT4.0	Assembly, C/C++, cC++, EC++	4.1.1
CWHC08CC	Standalone C/C++/ cC++/EC++ Compiler for HC08	HC08 family processors (AB, AS, AZ, BD, EY, GP, GR, JB, JK, JL, KH, KX, LD, MR, RF, RK and SR families)	Metrowerks OSEKturbo OS HC08		MON08	Windows 95/98/2000/ ME/NT4.0	Assembly, C/C++, cC++, EC++	4.1.1
CWHC08MIG	CW Full Package for HC08 Migration	HC08 family processors (AB, AS, AZ, BD, EY, GP, GR, JB, JK, JL, KH, KX, LD, MR, RF, RK and SR families)	Metrowerks OSEKturbo OS HC08		MON08	Windows 95/98/2000/ ME/NT4.0	Assembly, C/C++, cC++, EC++	4.1.1
CWHC11ASM	CW ASM Tools for HC11	HC11 family processors (D, E, F, FC, K, KS, KW and P families)			Monitor	Windows 95/98/2000/ ME/NT4.0	Assembly, C/C++, cC++, EC++	4.1.1
CWHC11	CW Full Package for HC11	HC11 family processors (D, E, F, FC, K, KS, KW and P families)			Monitor	Windows 95/98/2000/ ME/NT4.0	Assembly, C/C++, cC++, EC++	4.1.1
CWHC11MIG	CW Full Package for HC11 Migration	HC11 family processors (D, E, F, FC, K, KS, KW and P families)	Metrowerks OSEKturbo OS H		Monitor	Windows 95/98/2000/ ME/NT4.0	Assembly, C/C++, cC++, EC++	4.1.1
CWHC12ASM	CW ASM Tools for HC12	HC12 family processors, (B, BC, BE, D, DG, DT, PP, H and DTB families)	Metrowerks OSEKturbo OS H		SDI, P&E ICD, Abatron BDI, Noral BDM, Lauterbach BDM, Dbug12	Windows 95/98/2000/ ME/NT4.0	Assembly, C/C++, cC++, EC++	4.1.1

HC05, HC08, HC11, HC12, HC16, MPC5xx, 568xx, and MCORE — Metrowerks (continued)

Product	Description	Target Support	RTOS Support	Board Support	Host-Target Interface	Host Platforms	Language Support	IDE Version
CWHC12	CW Full Package for HC12	HC12 family processors, (B, BC, BE, D, DG, DT, PP, H, and DTB families)	Metrowerks OSEKturbo OS H		SDI, P&E ICD, Abatron BDI, Noral BDM, Lauterbach BDM, Dbug12	Windows 95/98/2000/ ME/NT4.0	Assembly, C/C++, cC++, EC++	4.1.1
CWHC12MIG	CW Full Package for HC12 Migration	HC12 family processors, (B, BC, BE, D, DG, DT, PP, H and DTB families)	Metrowerks OSEKturbo OS H		SDI, P&E ICD, Abatron BDI, Noral BDM, Lauterbach BDM, Dbug12	Windows 95/98/2000/ ME/NT4.0	Assembly, C/C++, cC++, EC++	4.1.1
CWHC16ASM	CW ASM Tools for HC16	HC16 family processors (R, X, Y, and Z families)			P&E ICD, Abatron BDI, Lauterbach BDM	Windows 95/98/2000/ ME/NT4.0	Assembly, C/C++, cC++, EC++	4.1.1
CWHC16	CW Full Package for HC16	HC16 family processors (R, X, Y, and Z families)			P&E ICD, Abatron BDI, Lauterbach BDM	Windows 95/98/2000/ ME/NT4.0	Assembly, C/C++, cC++, EC++	4.1.1
CWHC16MIG	CW Full Package for HC16 Migration	HC16 family processors (R, X, Y, and Z families)			P&E ICD, Abatron BDI, Lauterbach BDM	Windows 95/98/2000/ ME/NT4.0	Assembly, C/C++, cC++, EC++	4.1.1
CWMCORE	CodeWarrior Software Development Tools for MCORE	M2xx/3xx family processors		MMC2001; MMC2075/2080; MMC2107, MMC2103, MMC3401	MetroTRK; Metrowerks EBDI			4.1

MICROCONTROLLERS (continued)

DEVELOPMENT SYSTEMS

MON08 CYCLONE

The MON08 Cyclone provides all the capabilities of the MON08 Multilink plus the ability to function as a stand-alone programmer with push buttons and LEDs to control operation.

Cyclone Hardware

- Fast in-circuit stand-alone programming
  - Simple push button and LED user interface
- Host-based programming with scripting capability to execute a series of commands
  - Automate programming of test routines, test execution, erase, and final software programming
- Real-time in-circuit emulation and debug
- Auto-detects baud rate and frequency
- Provides optional overdrive clock to target
- Supports 2 V to 5.5 V 68HC08s
- Automatically cycles power for security checks (up to 500 mA)
- Universal power supply

Complete Windows-Based Integrated Development Environment

- Debugger, assembler, linker, programmer, and simulator

The order number for this product is M68CYCLONE08.

MON08 MULTILINK

The MON08 Multilink is an easy to use low-cost development tool for Motorola's 68HC08 FLASH MCUs. The MON08 Multilink provides in-circuit emulation, debugging, and programming through the 68HC08's standard MON08 serial debug/breakpoint interface.

Some of the features that help make the MON08 Multilink such a versatile, time-saving tool are:

Universal development tool for all MON08 68HC08s

- Real-time in-circuit emulation and debug
- Fast in-circuit programming
- Auto-detects baud rate and frequency
- Provides optional overdrive clock to target
- Small unobtrusive size (approximately 3" x 2" x 3/4")
- Supports 2 V to 5.5 V 68HC08s
- Automatically cycles power for security checks (up to 125 mA)
- Universal power supply

Complete Windows-Based Integrated Development Environment

- Debugger, assembler, linker, programmer, and simulator

Complete with sample of 68HC908GP32 FLASH MCU and comprehensive documentation

The order number for this product is M68MULTILINK08.

In-Circuit Simulator (ICS) Kits

Economical, Integrated Developing and Debugging

Motorola's in-circuit simulator kits are low-cost tools for developing and debugging target systems incorporating Motorola's most popular 68HC05 and 68HC08 MCUs. They provide an innovative interface to a user's target system for Windows-based editing, assembly, software simulation, programming, and in-circuit simulation. In-circuit simulation allows you to use the actual inputs and outputs of your target system during simulation of your code.

Features:

- Windows-based integrated development environment (IDE) with editor, assembler, debugger, and simulator:
  - Run under Windows 3.x®/Windows 98®
  - Examine and modify memory, registers, and I/O
  - Up to 64 instruction and register (accumulator, stack, index) break points
  - Several single-stepping and run modes of execution
  - Trace buffer holds previously executed instructions and variables
  - Data variable display window
  - Simulates all I/O, interrupts, timers, and other on-chip hardware
  - Detects attempted use of uninitialized or unimplemented locations
  - Data logging and script commands for recording and automatic execution of a sequence of commands
  - On-screen context-sensitive Windows help
- In-circuit simulation:
  - Emulation cable for connection to target system
  - Non-realtime in-circuit emulation
- Program EPROM, OTP, EEPROM, and FLASH microcontrollers

Kit Contents:

- Windowed EPROM or FLASH MCU sample
- Comprehensive documentation:
  - MCU technical data books
  - Software and hardware user's manual
  - Application guide/text book
  - MCU technical documentation CD-ROM
- Serial cable for PC to ICS connection
- Wall-mount power supply

Added Capabilities of the 68HC08 ICS Kits:

- Real-time in-circuit emulation available except for clock control and communication
- Real-time in-circuit debug using the 68HC08's MON08 serial debug/breakpoint capability
- Runs under Windows NT® and Windows 98

In Support of	Motorola Part Number
68HC705B16	M68ICS05B
68HC705C8A/C9A	M68ICS05C
68HC705JP7/JJ7	M68ICS05JP
68HC705KJ1/J1A	M68ICS05KJ
68HC705P6A	M68ICS05P
68HC908AB32	M68ICS08AB
68HC908AZ60A/AS60A	M68ICS08ASAZ
68HC908GP32	M68ICS08GPGT
68HC908GR4/GR8	M68ICS08GR
68HC908JB8	M68ICS08JB
68HC908JL3/JK3/JK1	M68ICS08JLJK
68HC908KX8/KX2	M68ICS08KX
68HC908LJ12	M68ICS08LJ
68HC908MR8/MR16/MR32	M68ICS08MR
68HC908RK2	M68ICS08RK2
68HC908SR12	M68ICS08SR
68HC908GT8/16	M68ICS08GPGT

MICROCONTROLLERS (continued)
DEVELOPMENT SYSTEMS (continued)

Modular Evaluation System (MMEVS) Kits

The Motorola modular evaluation system (MMEVS) is Motorola's economical, two-board emulator for the 68HC(7)05 and 68HC(9)08 Families of microcontrollers. The MMEVS consists of a platform board and an emulator module (EM). Connected to your target system, the emulator replicates the actual target system MCU. An integrated development environment (IDE) allows for quick edits and changes to assembly code, which makes design, debug, and real-time evaluation of the target system as efficient as possible. Use this economical system to perform traditional debugging activities such as executing code in run or step mode, setting break points, monitoring or modifying CPU registers, memory and application variables, and creating log or script files to record test results or create test suites.

Features:

- Real-time, non-intrusive, in-circuit emulation at the MCU's operating frequency
- 64 hardware break points
- Control of code execution in run or step mode
- 64K bytes of fast emulation memory (SRAM)
- Current-limited target input/output connections
- 6 software-selectable oscillator clock sources
- Command and response logging to save session history and/or to generate script files
- SCRIPT command for automatic execution of a sequence of commands (such as system configuration setup and automated test runs)
- Assembly source-level debugging
- Host/emulator communication speeds as high as 57,600 baud
- Extensive on-line MCU information via the CHIPINFO command
- Integrated development environment (IDE) including editor, assembler, and assembly source-level debugger

Kit Contents:

- MMEVS platform board (M68MMPFB0508):
  - IDE (including editor, assembler, debugger)
  - 9-lead RS-232 serial cable
  - 9- to 25-pin serial cable adapter
  - MMEVS user's manuals
  - Power supply
- Device-specific emulation module
- Device- and package-specific target cables/adapters
- In-circuit simulation and programming kit (ICS)

In Support of	Motorola Part Number
68HC705B16	KITMMEVS05B
68HC705C8A/C9A	KITMMEVS05C
68HC705JP7/JJ7	KITMMEVS05JP
68HC705KJ1/J1A	KITMMEVS05KJ
68HC705P6A	KITMMEVS05P6A
68HC908AB32	KITMMEVS08AB32
68HC908AZ60A/AS60A	KITMMEVS08ASAZ
68HC908GP32	KITMMEVS08GPGT
68HC908GR4/GR8	KITMMEVS08GR
68HC908JB8	KITMMEVS08JB8
68HC908JL3/JK3/JK1	KITMMEVS08JL
68HC908KX8/KX2	KITMMEVS08KX
68HC908LJ12	KITMMEVS08LJ
68HC908MR16/MR32	KITMMEVS08MR32
68HC908SR12	KITMMEVS08SR12
68HC908GT8/16	KITMMEVS08GPGT

Modular Development System (MMDS) Kits

The Motorola modular development system (MMDS) is a full-featured emulator system for developing embedded systems using 68HC(7)05 and 68HC(9)08 microcontrollers. In addition to incorporating the debug features of the Motorola modular evaluation system (MMEVS), the MMDS adds advanced features such as real-time, dual-ported memory and a bus state analyzer to capture user-defined bus cycles or events. Use the dual-ported memory to tune filter circuits or monitor changes to program variables while your program is running at full speed. Verify nested or complex program flows using the bus state analyzer's full range of sequenced or logical event triggering and data capture modes. These added features help users develop, debug, and deliver 68HC05 or 68HC08 products in less time.

Features:

- Real-time, non-intrusive, in-circuit emulation at the operating frequency of the target device
- Control of code execution in run or step mode
- Real-time bus state analyzer:
  - 8K x 64 real-time trace buffer
  - Display of real-time trace data
  - Four hardware triggers
  - Nine triggering modes
  - up to 8190 pre- or post-trigger points for trace data
  - 16 general-purpose logic chips
  - 16-bit time tag, or optional 24-bit time tag
- 4 complex break points (any combination of address, data, control, and/or I/O)
- 64 instruction break points
- 32 real-time variables
- 32 bytes of real-time memory
- 64K bytes of fast emulation memory (SRAM)
- Current-limited target input/output connections
- 6 software-selectable oscillator clock sources
- Command and response logging to save session history and/or to generate script files
- SCRIPT command for automatic execution of a sequence of commands (such as system configuration setup and automated test runs)
- Host/emulator communications speeds as high as 57,600 baud
- Extensive on-line device information via CHIPINFO command
- Integrated development environment (IDE) including editor, assembler, and source-level debugger

Contents:

- MMDS Station module with built-in power supply (M68MMDS0508):
  - 39 cm deep x 25.9 cm wide x 7 cm high
  - Two logic clip cable assemblies
  - 9-lead RS-232 serial cable
  - 9- to 25-pin serial cable adapter
  - IDE with editor, assembler, and debugger
- Device-specific emulation module
- Device- and package-specific target cables/adapters
- In-circuit simulation and programming kit (ICS)

In Support of	Motorola Part Number
68HC705B16	KITMMDS05B
68HC705C8A/C9A	KITMMDS05C
68HC705JP7/JJ7	KITMMDS05JP
68HC705KJ1/J1A	KITMMDS05KJ
68HC705P6A	KITMMDS05P6A
68HC908AB32	KITMMDS08AB32
68HC908AZ60A/AS60A	KITMMDS08ASAZ
68HC908GP32	KITMMDS08GPGT
68HC908GR4/GR8	KITMMDS08GR
68HC908JB8	KITMMDS08JB8
68HC908JL3/JK3/JK1	KITMMDS08JL
68HC908KX8/KX2	KITMMDS08KX
68HC908LJ12	KITMMDS08LJ
68HC908MR16/MR32	KITMMDS08MR32
68HC908SR12	KITMMDS08SR12
68HC908GT8/16	KITMMDS08GPGT

CodeWarrior Development Studio for HC08, Special Edition

This comprehensive special edition toolset combines the best from Motorola, Metrowerks, and leading third-party developers, and is bound to establish a new standard with the included components for fast and easy MCU development.

Features:

- Industry-leading CodeWarrior Integrated Development Environment
  - Project manager for up to 32 files
  - Built-in “stationary” templates with example assembly and C code to help create new projects faster
- Full-chip simulation and Flash programming with P&E Microcomputer Systems technology
- Assembler, linker, and assembly source level debugger supports all 68HC08 MCUs
- Highly optimized ANSI C compiler and C source level debugger for many of Motorola’s most popular 68HC08 MCUs
  - Fully supports the 68HC908JL3, JK3, JK1, KX2, GR4, RK2, RF2, and future derivatives with less than 4 kB of memory
  - Over 60 optimization strategies specifically designed to boost performance and reduce code size
- Processor Expert™ rapid application design tool from UNIS
  - Provides optimized and tested automatic C code generation for most 68HC08 on-chip peripherals to dramatically reduce development time and improve code quality
  - Helps to eliminate time spent on low-level details, which allows more time for adding value to system solution
  - Promotes reusability and easy system configuration
  - Verifies design based on actual MCU resources and timing contentions to help catch potential problems before you begin debugging
- Fully supports Motorola’s 68HC08 hardware development tools
  - MMDS, MMEVS, ICS, Cyclone, and MON08 Multilink

The special edition software is available on CD-ROM and for download from www.motorola.com/mcu
The order number for this product is CDCWSEHC08/D.

C Compiler

The special edition is a full-featured toolset with a 4K code size limited version of our highly optimized C compiler. You can upgrade to an unrestricted C compiler and C source level debugger for all 68HC08 microcontrollers

The order number for this product is CWHC08CUPG.

Standard Edition

The standard edition includes ANSI C/C++- and compact C++-compliant compilers, project management for greater than 32 files, and access to an additional 170-plus software-only objects for the Processor Expert design tool.

The order number for this product is CWHC08STD.

Professional Edition

The professional edition provides the following additional advanced tools to speed your design to market:

- Cycle accurate true-timer simulator
- Code coverage analysis
- Profile analysis
- Soft trace
- Data visualization
- Encryption support
- Additional advanced objects for the processor Expert design tool, including support for complex communication modules such as CAN

The order number for this product is CWHC08PRO.

68HC05 Emulators, Cables, and Adapters

Product	Platform	Emulation Modules	Packages Supported	Flex Cable	Target Head Adapter	Surface Mount Adapter
68HC05B6/B8/B16/B32 68HC705B16N/B32	M68MMPFB0508 or M68MMDS0508	M68EM05B32	56 SDIP (B)	M68CBL05B	M68TB05B32B56	
			64 QFP (FU)	M68CBL05C	M68TC05B32FU64	M68TQP064SA1(1)
			52 PLCC (FN)	M68CBL05C	M68TC05B32FN52	M68TQS064SAG1(1)
68HC05BD3/BD5/BD7 68HC705BD3/BD7	M68MMPFB0508 or M68MMDS0508	M68EM05BD7	40 DIP (P)	M68CBL05B	M68TB05BD7P40	
			42 SDIP (B)	M68CBL05B	M68TB05BD7B42	
68HC05BD9/BD16/BD24 68HC705BD9/BD24	M68MMPFB0508 or M68MMDS0508	X68EM05BD9	40 DIP (P)	M68CBL05B	M68TB05BD9P40	
			42 SDIP (B)	M68CBL05B	M68TB05BD9B42	
68HC05C4A/C8A/C12A 68HC705C8A	M68MMPFB0508 or M68MMDS0508	M68EM05C9A	40 DIP (P)	M68CBL05B	M68TB05C9P40	
			44 PLCC (FN)	M68CBL05C	M68TC05C4FN44	
			44 QFP (FB)	M68CBL05C	M68TC05C9FB44	M68TQS044SAG1(1) M68TQP044SAMO1(1)
			42 SDIP (B)	M68CBL05B	M68TB05C9B42	
68HC05C9A 68HC705C9A	M68MMPFB0508 or M68MMDS0508	M68EM05C9A	40 DIP (P)	M68CBL05B	M68TB05C9P40	
			44 PLCC (FN)	M68CBL05C	M68TC05C9FN44	
			42 SDIP (B)	M68CBL05B	M68TB05C9B42	
			44 QFP (FB)	M68CBL05C	M68TC05C9FB44	M68TQS044SAG1(1) M68TQP044SAMO1(1)
68HC05E6 68HC705E6	M68MMPFB0508 or M68MMDS0508	M68EM05E6	28 SOIC (DW)	M68CBL05C	M68TC05E6P28	M68DIP28SOIC
			44 QFP (FB)	M68CBL05C	M68TC05E6FB44	M68TQS044SAG1(1) M68TQP044SAMO1(1)
68HC705F32	M68MMPFB0508 or M68MMDS0508	M68EM05F32	100 TQFP (PU)	M68CBL05E	M68TE05F32PU100	
			80 TQFP (PU)	M68CBL05E	M68TE05F32PU80	
68HC05H12 68HC705H12	M68MMPFB0508 or M68MMDS0508	X68EM05H12	52 PLCC (FN)	M68CBL05C	X68TC05H12FN52	
68HC05J5A 68HC05LJ5 68HC705J5A	M68MMPFB0508 or M68MMDS0508	X68EML05J5A	16 DIP (P)	M68CBL05A	M68TA05J5AP16	
			20 DIP (P)	M68CBL05A	M68TA05J5AP20	
			16 SOIC (DW)	M68CBL05A	M68TA05J5AP16	M68DIP16SOIC
			20 SOIC (DW)	M68CBL05A	M68TA05J5AP20	M68DIP20SOIC

1. Each QFP target head adapter includes one TQSOCKET with guides (M68TQSxxxSyG1) and one TQPACK disposable surface mount adapter (M68TQPxxxSy1 – 1.2-mm lead length or M68TQPxxxSyMO1 – 1.6-mm lead length). Order additional TQPACKs and TQSOCKETs (optional) using part numbers referenced in the Surface Mount Adapters column to support multiple target systems.

68HC05 Emulators, Cables, and Adapters (continued)

Product	Platform	Emulation Modules	Packages Supported	Flex Cable	Target Head Adapter	Surface Mount Adapter
68HC705JB3	M68MMPFB0508 or M68MMDS0508	X68EM05JB3	20 DIP (P)	M68CBL05A	M68TA05JB3P20	
			28 DIP (P)	M68CBL05A	M68TA05JB3P28	
			28 SOIC (DW)	M68CBL05A	M68TA05JB3P28	M68DIP28SOIC
68HC705JB4	M68MMPFB0508 or M68MMDS0508	X68EM05JB4	28 DIP (P)	M68CBL05A	M68TA05JB4P28	
			28 SOIC (DW)	M68CBL05A	M68TA05JB4P28	M68DIP28SOIC
68HC705JJ7 68HC05JJ6	M68MMPFB0508 or M68MMDS0508	X68EM05JP7	20 DIP (P)	M68CBL05A	X68TA05JJ7P20	
			20 SOIC (DW)	M68CBL05A	X68TA05JJ7P20	M68DIP20SOIC
68HC705JP7 68HC05JP6	M68MMPFB0508 or M68MMDS0508	X68EM05JP7	28 DIP (P)	M68CBL05A	X68TA05JP7P28	
			28 SOIC (DW)	M68CBL05A	X68TA05JP7P28	M68DIP28SOIC
68HC05J1A 68HC705J1A	M68MMPFB0508 or M68MMDS0508	M68EM05J1A	20 DIP (P)	M68CBL05A	M68TA05J2P20	
			20 SOIC (DW)	M68CBL05A	M68TA05J2P20	M68DIP20SOIC
68HC705KJ1	M68MMPFB0508 or M68MMDS0508	M68EM05J1A	16 DIP (P)	M68CBL05A	M68TA05KJ1P16	
			16 SOIC (DW)	M68CBL05A	M68TA05KJ1P16	M68DIP16SOIC
68HC05L5/L16 68HC705L16	M68MMPFB0508 or M68MMDS0508	M68EML05L16	80 QFP (FU)	M68CBL05E	M68TE05L16FU80	M68TQS080SBG1[1] M68TQP080SBMO1[1]
68HC05L25 68HC705L26	M68MMPFB0508 or M68MMDS0508	M68EML05L26	52 LQFP (PB)	M68CBL05C	M68TC05L26PB52	
68HC05P1A/P4A/P9A 68HC705P6A	M68MMPFB0508 or M68MMDS0508	X68EML05P6A	28 DIP (P)	M68CBL05A	M68TA05P9P28	
			28 SOIC (DW)	M68CBL05A	M68TA05P9P28	M68DIP28SOIC
68HC05P18 68HC805P18	M68MMPFB0508 or M68MMDS0508	X68EM05P18	28 DIP (P)	M68CBL05A	M68TA05P9P28	
			28 SOIC (DW)	M68CBL05A	M68TA05P9P28	M68DIP28SOIC
68HC05PL4 68HC705PL4	M68MMPFB0508 or M68MMDS0508	X68EML05PL4	20 DIP (P)	M68CBL05A	M68TA05PL4P20	
			28 DIP (P)	M68CBL05A	M68TA05PL4P28	
			20 SOIC (DW)	M68CBL05A	M68TA05PL4P20	M68DIP20SOIC
			28 SOIC (DW)	M68CBL05A	M68TA05PL4P28	M68DIP28SOIC
68HC805PV8	M68MMPFB0508 or M68MMDS0508	X68EM05PV8	28 SOIC (DW)	M68CBL05A	X68TA05PV8P28	M68DIP28SOIC

1. Each QFP target head adapter includes one TQSOCKET with guides (M68TQSxxxSyG1) and one TQPACK disposable surface mount adapter (M68TQPxxxSy1 – 1.2-mm lead length or M68TQPxxxSyMO1 – 1.6-mm lead length). Order additional TQPACKs and TQSOCKETs (optional) using part numbers referenced in the Surface Mount Adapters column to support multiple target systems.

68HC05 Emulators, Cables, and Adapters (continued)

Product	Platform	Emulation Modules	Packages Supported	Flex Cable	Target Head Adapter	Surface Mount Adapter
68HC05RC18 68HC705RC16/RC17	M68MMPFB0508 or M68MMDS0508	X68EM05RC16	28 DIP (P)	M68CBL05A	X68TA05RC16P28	
			28 SOIC (DW)	M68CBL05A	X68TA05RC16P28	M68DIP28SOIC
68HC05SR3/SU3A 68HC705SR3	M68MMPFB0508 or M68MMDS0508	M68EM05SR3	40 DIP (P)	M68CBL05B	M68TB05SR3P40	
			44 QFP (FB)	M68CBL05C	M68TC05SR3FB44	M68TQS044SAG1(1) M68TQP044SAMO1(1)
			42 SDIP (B)	M68CBL05B	M68TB05SR3B42	
68HC05X4 68HC705X4	M68MMPFB0508 or M68MMDS0508	M68EM05X4	28 DIP (P)	M68CBL05A	M68TA05X4P28	
			28 SOIC (DW)	M68CBL05A	M68TA05X4P28	M68DIP28SOIC
68HC05X16/X32 68HC705X32	M68MMPFB0508 or M68MMDS0508	M68EML05X32	64 QFP (FU)	M68CBL05E	M68TE05X32FU64	M68TQS064SAG1(1) M68TQP064SA1(1)

1. Each QFP target head adapter includes one TQSOCKET with guides (M68TQSxxxSyG1) and one TQPACK disposable surface mount adapter (M68TQPxxxSy1 – 1.2-mm lead length or M68TQPxxxSyMO1 – 1.6-mm lead length). Order additional TQPACKs and TQSOCKETs (optional) using part numbers referenced in the Surface Mount Adapters column to support multiple target systems.

68HC08 Emulators, Cables, and Adapters

Product	Platform	Emulation Modules	Packages Supported	Flex Cable	Target Head Adapter	Surface Mount Adapter
68HC908AB32 68HC08AB16A	M68MMPFB0508 or M68MMDS0508	M68EML08AB32	64 QFP (FU)	M68CBL05C	M68TC08AB32FU64	M68TQS064SAG1(2) M68TQP064SA1(2)
68HC08AS20/32/60 68HC08AZ32/60 68HC908AS32/60A 68HC908AZ60A 68HC908AZ32A	M68MMPFB0508 or M68MMDS0508	M68EM08AS/AZ60A	52 PLCC (FN) 64 QFP (FU)	M68CBL05C M68CBL05C	X68TC08AX48FN52 X68TC08AX48FU64	M68TQS064SAG1(2) M68TQP064SA1(2)
68HC908BD48	M68MMPFB0508 or M68MMDS0508	M68EM08BD48	42 SDIP (B) 44 QFP (FB) 28 DIP (P)	M68CBL05B M68CBL05C M68CBL05B	M68TB08BD48B42 M68TC08BD48FB44 M68TB08BD48P28	M68TQS044SAG1(2) M68TQP044SAMO1(2)
68HC908GP32 68HC08GP32 68HC908GT16 68HC908GT8	M68MMPFB0508 or M68MMDS0508	M68EML08GPGT	40 DIP (P) 42 SDIP (B) 44 QFP (FB)	M68CBL05B M68CBL05B M68CBL05C	M68TB08GP32P40 M68TB08GP32B42 M68TC08GP32FB44	M68TQS044SAG1(2) M68TQP044SAMO1(2)
68HC908GR8 68HC908GR4	M68MMPFB0508 or M68MMDS0508	M68EML08GP32	28 DIP (P) 32 QFP (FA)	M68CBL05C M68CBL05C	M68TC08GR8P28 M68TC08GR8FA32	M68TQS032SAG1(2) M68TQP032SA1(2)
68HC908JB8	M68MMPFB0508 or M68MMDS0508	M68EM08JB8	20 DIP (P) 20 SOIC (DW) 28 SOIC (DW) 42 SDIP (B) 44 QFP (FB)	M68CBL05C M68CBL05C M68CBL05C M68CBL05B M68CBL05C	M68TC08JB8P20 M68TC08JB8P20 M68TC08JB8P28 M68TB08JB8B42 M68TC08JB8FB44	M68DIP20SOIC M68DIP28SOIC M68TQS044SAG1(2) M68TQP044SAMO1(2)
68HC908JL3 68HC08JL3	M68MMPFB0508 or M68MMDS0508	M68EML08GP32	28 DIP (P) 28 SOIC (DW) 48 QFP (FA)	M68CBL05C M68CBL05C M68CBL05C	M68TC08JL3P28 M68TC08JL3P28 M68TC08JL3FA48	M68DIP28SOIC M68TQS048SDG1(2) M68TQAP048SD1(2)

1. New development tool product to be introduced.
2. Each QFP target head adapter includes one TQSOCKET with guides (M68TQSxxxSyG1) and one TQPACK disposable surface mount adapter (M68TQPxxxSy1 – 1.2-mm lead length or M68TQPxxxSyMO1 – 1.6-mm lead length). Order additional TQPACKs and TQSOCKETs (optional) using part numbers referenced in the Surface Mount Adapters column to support multiple target systems.

68HC08 Emulators, Cables, and Adapters (continued)

Product	Platform	Emulation Modules	Packages Supported	Flex Cable	Target Head Adapter	Surface Mount Adapter
68HC908JK3 68HC908JK1	M68MMPFB0508 or M68MMDS0508	M68EML08GP32	20 DIP (P)	M68CBL05C	M68TC08JK3P20	
			20 SOIC (DW)	M68CBL05C	M68TC08JK3P20	M68DIP20SOIC
68HC908KX8 68HC908KX2	M68MMPFB0508 or M68MMDS0508	M68EML08KX8	16 DIP (P)	M68CBL05A	M68TA05KX6P16	
			16 SOIC (DW)	M68CBL05A	M68TA05KX6P16	M68DIP16SOIC
68HC908LD64	M68MMPFB0805 or M68MMDS0508	X68EML08LD64	64 QFP (FU)	M68CBL05C	M68TC08LD64FU64	M68TQS064SAG1(2) M68TQP064SA1(2)
68HC908LJ12	M68MMPFB0805 or M68MMDS0508	M68EML08LJ12	64 QFP (FU) 64 LQFP (PB) 52 QFP (FB)	M68CBL05C	M68TC08LJ12FU64 M68TC08LJ12PB64 M68TC08LJ12FB52	M68TQS064SAG1(2) M68TQP064SA1(2)
68HC908MR8 68HC08MR4	M68MMPFB0805 or M68MMDS0508	M68EM08MR8(1)	32 QFP (FA)	M68CBL05C	MC68TC08MR8FA32	M68TQS032SAG1(2) M68TQP032SA1(2)
68HC908MR32 68HC908MR24 68HC908MR16	M68MMPFB0508 or M68MMDS0508	M68EM08MR32	64 QFP (FU)	M68CBL05C	M68TC08MR24FU64	M68TQS064SAG1(2) M68TQP064SAMO1(2)
			56 SDIP (B)	M68CBL05C	M68TC08MR24B56	
68HC908RK2	M68MMPFB0508 or M68MMDS0508	M68EML08RK2(1)	20 DIP (P)	M68CBL05A	M68TA05RK2P20(1)	
			20 SOIC (DW)	M68CBL05A	M68TA05RK2P20(1)	M68DIP20SOIC
			32 QFP (FA)	M68CBL05A	M68TA05RK2FA32	M68TQS032SAG1(2) M68TQP032SA1(2)
68HC908SR12	M68MMPFB0508 or M68MMDS0508	M68EML08SR12	42 SDIP (B)	M68CBL05B	M68TB08SR12B42	
			48 QFP (FA)	M68CBL05C	M68TC08SR12FA48	M68TQS048SDG1(2) M68TQP048SD1(2)

1. New development tool product to be introduced.
2. Each QFP target head adapter includes one TQSOCKET with guides (M68TQSxxxSyG1) and one TQPACK disposable surface mount adapter (M68TQPxxxSy1 – 1.2-mm lead length or M68TQPxxxSyMO1 – 1.6-mm lead length). Order additional TQPACKs and TQSOCKETs (optional) using part numbers referenced in the Surface Mount Adapters column to support multiple target systems.

68HC11 Evaluation Board

Products	Board
68HC11A8 68HC11E9 68HC711E9 68HC811E2	M68HC11EVBU2

68HC11 Emulators, Cables, and Adapters

Product	Platform	Emulation Module (EM)	Package	Flex Cable	Target Head
68HC11D3	M68MMDS11 or M68HC11PFB	M68EM11D3	40-pin plastic DIP (P)	M68CBL05C	M68TC11D3P40
		M68EM11D3	44-lead PLCC (FN)	M68CBL05C	M68TC11D3FN44
		M68EM11D3	44-lead QFP (FB)	M68CBL05C	M68TC11D3FB44
68HC711D3	M68MMDS11 or M68HC11PFB	M68EM11D3	40-pin plastic DIP (P)	M68CBL05C	M68TC11D3P40
		M68EM11D3	44-lead PLCC (FN)	M68CBL05C	M68TC11D3FN44
68HC11E9 68HC711E9	M68MMDS11 or M68HC11PFB	M68EM11E20	52-lead PLCC (FN)	M68CBL05C	M68TC11E20FN52
		M68EM11E20	52-lead QFP (PB)	M68CBL05C	M68TC11E20PB52
		M68EM11E20	64-lead QFP (FU)	M68CBL05C	M68TC11E20FU64
68HC11E20 68HC711E20	M68MMDS11 or M68HC11PFB	M68EM11E20	52-lead PLCC (FN)	M68CBL05C	M68TC11E20FN52
		M68EM11E20	64-lead PLCC (FU)	M68CBL05C	M68TC11E20FU64
68HC811E2	M68MMDS11 or M68HC11PFB	M68EM11E20	48-pin plastic DIP (P)	M68CBL05B	M68TB11E20P48
		M68EM11E20	52-lead PLCC (FN)	M68CBL05B	M68TC11E20FN52
68HC11F1	M68MMDS11 or M68HC11PFB	M68EM11F1	68-lead PLCC (FN)	M68CBL05C	M68TC11F1FN68
		M68EM11F1	80-lead TQFP (PU)	M68CBL05C	M68TC11F1PU80
68HC11G5 68HC11G7	M68MMDS11 or M68HC11PFB	M68EM11G5	84-lead PLCC (FN)	M68CBL05D	M68TD11G5FN84
68HC11K4 68HC711K4	M68MMDS11 or M68HC11PFB	M68EM11K4	80-lead TQFP (FU)	M68CBL05E	M68TE11K4FU80
		M68EM11K4	84-lead PLCC (FN)	M68CBL05D	M68TD11K4FN84
68HC11KS2 68HC711KS2	M68MMDS11 or M68HC11PFB	M68EM11KA4	68-lead PLCC (FN)	M68CBL05C	M68TC11KA4FN68
68HC11L6 68HC711L6	M68MMDS11 or M68HC11PFB	M68EM11L6	64-lead QFP (FU)	M68CBL05C	M68TC11L6FU64
		M68EM11L6	68-lead PLCC (FN)	M68CBL05C	M68TC11L6FN68
68HC11P2 68HC711P2	M68MMDS11 or M68HC11PFB	M68EM11P2	84-lead PLCC (FN)	M68CBL05D	M68TD11K4FN84

68HC05 Programmers

Product	Packages Supported	Programming Adapter	Programmer Board
68HC705B16 68HC705B32	52 PLCC (FN) 56 SDIP (B)	NA	M68ICS05B Serial Programmer/In-Circuit Simulator
68HC705BD3 68HC705BD7	40 DIP (P)	M68UPA05BD3040	M68HC705UPGMR
	42 SDIP (B)	M68UPA05BD3B42	
68HC705C8A 68HC705C9A	40 DIP (P/S) 44 PLCC (FN/FS)	NA	M68ICS05C Serial Programmer/In Circuit Simulator
68HC705E6	44 QFP (FB) 28 SOIC (DW)	NA	M68HC705E6PGMR
68HC705F32	100 TQFP	NA	X68HC705F32PGMR
68HC705H12	52 PLCC (FN)	NA	X68HC705H12PGMR
68HC705KJ1 68HC705J1A	16 and 20 DIP (P) 16 and 20 SOIC (DW)	NA	M68ICS05KJ Serial Programmer/In-Circuit Simulator
68HC705J5A	16 DIP (P)	M68UPA05J5AP16	M68HC705UPGMR
	20 DIP (P)	M68UPA05J5AP20	
	20 SOIC (DW)	M68UPA05J5ADW20	
68HC705JB3	20 DIP (P)	M68UPA05JB3P20	M68HC705UPGMR
	28 DIP (P)	M68UPA05JB3P28	
	28 SOIC (DW)	M68UPA05JB3DW28	
68HC705JB4	28 DIP (P)	M68UPA05JB4P28	M68HC705UPGMR
	28 SOIC (DW)	M68UPA05JB4DW28	
68HC705JJ7	20 DIP (P) 20 SOIC (DW)	NA	M68ICS05JP Serial Programmer/In-Circuit Simulator
68HC705JP7	28 DIP (P) 28 SOIC (DW)	NA	M68ICS05JP Serial Programmer/In-Circuit Simulator
68HC705L16	80 QFP (FU/FZ)	NA	KITPGMR05L16
68HC705P6A	28 DIP (P) 28 SOIC (DW)	NA	M68ICS05P Serial Programmer/In-Circuit Simulator
68HC805P18	28 DIP (P/S)	NA	X68HC805P18PGMR
68HC705PL4	20 DIP (P)	M68UPA05PL4P20	M68HC705UPGMR or M68HC705UGANG
	28 DIP (P)	M68UPA05PL4P28	
	20 SOIC (DW)	M68UPA05PL4DW20	
	28 SOIC (DW)	M68UPA05PL4DW28	
68HC805PV8	28 SOIC (DW)	NA	X68HC805PV8PGMR
68HC705SR3	40 DIP (P)	M68UPA05SR3P40	M68HC705UPGMR
	44 QFP (FB)	M68UPA05SR3FB44	
68HC705X4	28 DIP (P/S) 28 SOIC (DW)	NA	M68HC705X4PGMR
68HC705X32	64 QFP (FU) 68 PLCC (FN)	NA	M68HC705X32PGMR

68HC08 Programmers

Product	Packages Supported	Programming Adapter	Programmer Board
All 68HC908s	NA (In-circuit only)	NA	MON08 Cyclone — Stand-alone programmer for in-circuit programming and debug (part number M68CYCLONE08)
	NA (In-circuit only)	NA	MON08 Multilink Cable — For in-circuit programming and debug (part number M68MULTILINK08)
68HC908AB32	64 QFP	NA	M68ICS08AB Serial Programmer/In-Circuit Simulator
68HC908AB32	64 QFP	M68UPA08AB32FU64	M68HC705UPGMR or M68HC705UGANG Parallel Programmer
68HC908AZ60A 68HC908AS60A	64 QFP (FU) 52 PLCC (FN)	NA	M68ICS08AZAS Serial Programmer/In-Circuit Simulator
68HC908BD48	44 QFB (FB)	M68UPA08BD48FB44	M68HC705UPGMR or M68HC705UGANG Parallel Programmer
	42 SDIP (B)	M68UPA08BD48B42	
	28 DIP (P)	M68UPA08BD48P28	
68HC908GP32	40 DIP (P) 44 QFP (FB)	NA	M68ICS08GPGT Serial Programmer/In-Circuit Simulator: recommended for DIP and QFP programming
68HC908GP32	40 DIP (P)	M68UPA08GP32P40	M68HC705UPGMR or M68HC705UGANG Parallel Programmer
	42 SDIP (B)	M68UPA08GP32B42	
	44 QFP (FB)	M68UPA08GP32FB44	
68HC908GR8 68HC908GR4	28 DIP (P) 32 QFP (FA)	NA	M68ICS08GR Serial Programmer/In-Circuit Simulator
68HC908JB8	20 DIP (P) 20 SOIC (DW) 28 SOIC (DW) 42 SDIP (B) 44 QFP (FB)	NA	M68ICS08JB Serial Programmer/In-Circuit Simulator
68HC908JB8	20 DIP (P)	M68UPA08JB8P20	M68HC705UPGMR or M68HC705UGANG Parallel Programmer
	20 SOIC (DW)	M68UPA08JB8DW20	
	28 SOIC (DW)	M68UPA08JB8DW28	
	42 SDIP (B)	M68UPA08JB8B42	
	44 QFP (FB)	M68UPA08JB8FB44	
68HC908JK3/JK1	20 DIP (P) 20 SOIC (DW)	NA	M68ICS08JLJK Serial Programmer/In-Circuit Simulator
68HC908JK3/JK1	20 DIP (P)	M68UPA08JK3P20	M68HC705UPGMR or M68HC705UGANG Parallel Programmer
	20 SOIC (DW)	M68UPA08JK3DW20	
68HC908JL3	28 DIP (P) 28 SOIC (DW)	NA	M68ICS08JLJK Serial Programmer/In-Circuit Simulator
68HC908JL3	28 DIP (P)	M68UPA08JL3P28	M68HC705UPGMR or M68HC705UGANG Parallel Programmer
	28 SOIC (DW)	M68UPA08JL3DW28	

68HC08 Programmers (continued)

Product	Packages Supported	Programming Adapter	Programmer Board
68HC908KX8 68HC908KX2	16 DIP (P) 16 SOIC (DW)	NA	M68ICS08KX
68HC908LD64	64 QFP (FU)	M68UPA08LD64FU64	M68HC705UPGMR or M68HC705UGANG Parallel Programmer
		M68PA08LD64FU64	M68SPGMR08 Serial Programmer with NO In-Circuit Simulator
		NA	M68PGMR08DDC FLASH Programming through DDC Interface
68HC908LJ12	64 QFP (FU) 52 QFP (FB) 64 LQFP (PB)	NA	M68ICS08LJ Serial Programmer/In-Circuit Simulator
68HC908MR32 68HC908MR16 68HC908MR8	56 SDIP (B) 64 QFP (FU) 32 QFP (FA)	NA	M68ICS08MR Serial Programmer/In-Circuit Simulator
68HC908RK2	20 SOIC (DW)	NA	M68ICS08RK2 Serial Programmer/In-Circuit Simulator
68HC908SR12	42 SDIP (B) 48 QFP (FA)	NA	M68ICS08SR Serial Programmer/In-Circuit Simulator
68HC908SR12	42 SDIP (B) 48 QFP (FA)	M68UPA08SR12B42 M68UPA08SR12FA48	M68HC705UPGMR or M68HC705UGANG Parallel Programmer

68HC11 Programmers

Product	Platform	Package	Programmer Adapter
68HC711D3	M68SPGMR11	40-pin plastic DIP (P)	M68PA11D3P40
		44-pin QFP (FB)	M68PA11D3FB44
		44-lead PLCC (FN)	M68PA11D3FN44
68HC711E9 68HC11E9/E1	M68SPGMR11	52-lead PLCC (FN)	M68PA11E20FN52
		52-lead QFP (PB)	M68PA11E20PB52
		64-lead QFP (FU)	M68PA11E20FU64
68HC711E20 68HC11E20	M68SPGMR11	52-lead PLCC (FN)	M68PA11E20FN52
		64-lead PLCC (FN)	M68PA11E20FU64
68HC811E2	M68SPGMR11	48-pin plastic DIP (P)	M68PA11A8P48
		52-lead PLCC (FN)	M68PA11E20FN52
68HC11F1	M68SPGMR11	68-lead PLCC (FN)	M68PA11F1FN68
		80-lead TQFP (PU)	M68PA11F1PU80
68HC11G5 68HC11G7	M68SPGMR11	84-lead PLCC (FN)	M68PA11G5FN84
68HC711K4 68HC11K4/K1	M68SPGMR11	80-lead TQFP (FU)	M68PA11K4FU80
		84-lead PLCC (FN)	M68PA11K4FN84
68HC711KA2 68HC11KA2	M68SPGMR11	68-lead PLCC (FN)	M68PA11KA4FN68
68HC711KA4 68HC11KA4	M68SPGMR11	68-lead PLCC (FN)	M68PA11KA4FN68
68HC711KS2 68HC11KS2	M68SPGMR11	68-lead PLCC (FN)	M68PA11KA4FN68
68HC711L6 68HC11L6	M68SPGMR11	64-lead QFP (FU)	M68PA11L6FU64
		68-lead PLCC (FN)	M68PA11L6FN68
68HC711P2 68HC11P2	M68SPGMR11	84-lead PLCC (FN)	M68PA11K4FN84

HCS12 DEVELOPMENT KIT

The HCS12 Development Kit is an economical tool for developing code and evaluating it on HCS12 “Dx”, “A”, and “B” Family MCUs. This easy to order kit combines the BDM Multilink and an evaluation board (EVB). The EVB simplifies user evaluation of prototype hardware and software by providing the essential MCU timing and I/O circuitry as well as a prototype area to allow custom interfacing. The BDM Multilink interfaces to the EVB through the 6-pin BDM connector for real-time in-circuit emulation and fast FLASH programming.

HCS12DP256 Evaluation Board

- MC9S12DP256 MCU provides superset evaluation of all HCS12 “Dx”, “A”, and “B” derivatives
- 256K Bytes FLASH
- Prototyping area
- Header connectors for access to the MCU’s I/O and bus lines
- RS232 Communications
- CAN Communication

BDM Multilink

- Universal development tool for all BDM 68HC12s and HCS12s
- Real-time in-circuit emulation and debug
- Fast in-circuit programming
- Auto-detects frequency
- Small unobtrusive size (approximately 3” x 2” x 3/4”)
- Supports 2 V to 5.5 V targets

CodeWarrior Integrated Development Environment

- Full debugger, assembler, linker, and programmer
- Evaluation C compiler

The order number for this product is M68KIT912DP256.

BDM STAND-ALONE PROGRAMMER

The BDM Programmer provides a fast, efficient, low-cost method of programming the on-chip FLASH and EEPROM memory of our 68HC12 and HCS12 Families utilizing the BDM interface. The programmer can be used stand-alone with a simple push button and LED interface.

- Fast in-circuit stand-alone programming
  - Simple push button and LED user interface
  - Performs erase, program, and verify cycle on 256K FLASH parts in as little as 10.5 seconds
- Host-based programming with scripting capability to execute a series of commands
  - Automate programming of test routines, test execution, erase, and final software programming
- Optionally provides FLASH programming voltage via the BDM connector

The order number for this product is X68BDMPGMR12.

68HC12 Family

Product	Part Number	Evaluation Board	Serial Debug Interface Cable (BDM Cable)	ROM Monitor	Software	User Manual	Programming	Additional Information
68HC812A4	M68HC12A4EVB	•		•	•	•		Evaluation board for HC812A4.
	M68SDIL12		•		•	•	•	Serial cable to connect to HC12 background debug mode (BDM) debug connector.
68HC912B32	M68EVB912B32	•		•	•	•		Evaluation board for HC912B32.
	M68SDIL12		•		•	•	•	Serial cable to connect to HC12 BDM debug connector.
68HC912BC32	M68KIT912D60A	•		•		•		Kit with HC912D60 evaluation board (EVB) and serial debug interface (SDI) cable.
	M6EVB912D60A		•		•	•	•	Evaluation board for HC912D60A.
98HC912D60A	M68KIT912DG128A	•	•		•	•	•	Serial cable to connect to HC12 BDM debug connector.
	M68EVB912DG128A	•				•		Kit with HC912DG12BA.
	M68SDIL12		•		•	•	•	Serial cable to connect to HC12 BDM debug connector.
68HC912DG128A	M68KIT912DG128A	•	•		•	•	•	Kit with HC912DG128A EVB and SDI.
	M68EVB912DG128A	•				•		Evaluation board for HC912DG12BA.
	M68SDIL12		•		•	•	•	Serial cable to connect to HC12 BDM debug connector.
All HC12 Family	X68BDMPGMR12						•	Serial programmer usable without host PC.

HCS12 Family

Product	Part Number	Evaluation Board	BDMMultilink Cable	ROM Monitor	Software	User Manual	Programming	Additional Information
9S12DP256 9S12DT256 9S12DJ256 9S12DG256 9S12A256	M68EVB912DP256	•		•	•	•		Evaluation board for 9512DX256.
	M68KIT912DP256	•	•	•	•	•	•	Kit with 912DP256 evaluation board and serial debug interface cable (SDI).
	M68MULTILINK12		•		•	•	•	BDM Multilink cable to connect to HC12 BDM debug connector.
	CWDEV54512DP256	•	•	•	•	•		Includes full compiler and EVB in handsome suitcase.
	X68BDMPGMR12						•	Serial programmer usable without host PC.
9S12DT128 9S12DJ128 9S12DG128 9S12A128	M68EVB912DP128	•		•	•	•		Evaluation board for 9512DX128.
	M68KIT912DP128	•	•	•	•	•	•	Kit with 912DP128 evaluation board and serial debug interface cable (SDI).
	M68MULTILINK12		•		•	•	•	BDM multiline cable to connect to HC12 BDM debug connector.
	CWDEV54512DP128	•	•	•	•	•		Includes full compiler and EVB in handsome suitcase.
	X68BDMPGMR12						•	Serial programmer usable without host PC.
9S12H128 9S12H256	M68MULTILINK12		•		•	•	•	Includes full compiler and EVB in handsome suitcase.
	X68BDMPGMR12						•	Serial programmer usable without host PC.

68HC16 and 68300 MEVB Families

Product	Platform	Package	Microcontroller Personality Board	BDM Cable (Note)	Software
68HC916X1	M68MPFB1632	120 PQFP (FH)	M68MPB916X1C	M68ICD16 or M68SDIL	Included M68SDBUG16AB
68HC16Y1	M68MPFB1632	160 PQFP (FT)	M68MPB16Y1B	M68ICD16 or M68SDIL	Included M68SDBUG16AB
68HC16Z1	M68MPFB1632	132 PQFP (FC)	M68MPB16Z1B	M68ICD16 or M68SDIL	Included M68SDBUG16AB
68331	M68MPFB1632	132 PQFP (FC)	M68MPB331B	M68ICD32 or M68SDIL	Included M68SDBUG32AB
68332A	M68MPFB1632	132 PQFP (FC)	M68MPB332AB	M68ICD32 or M68SDIL	Included M68SDBUG32AB
68332G	M68MPFB1632	132 PQFP (FC)	M68MPB332GB	M68ICD32 or M68SDIL	Included M68SDBUG32AB
68336	M68MPFB1632	160 PQFP (FT)	M68MPB336GB	M68ICD32 or M68SDIL	Included M68SDBUG32AB
68376	M68MPFB1632	160 PQFP (FT)	M68MPB376GB	M68ICD32 or M68SDIL	Included M68SDBUG32AB

Note:
ICD = Parallel cable to connect to the HC16 or 6833X BDM debut connector
SDI = Serial cable to connect to the HC16 or 6833X BDM connector

M68300 Business Card Computer

Product	Platform	BCC
68331	M68300PFB	M68BCC331
68332A	M68300PFB	M68BCC332A
68332G	M68300PFB	M68BCC332G

MCORE Family

Product Supported	Description	Part Number	Serial Cable	CD ROM	User Manuals	Power Supply	Silicon Samples
MMC2107	Low-cost evaluation board	MMCEVB2107	•	•	•	•	•
	Mid-range evaluation board	MMCMB2107	•	•	•	•	•
	Mid-range evaluation board plus platform board	KITEVSMMC2107	•	•	•	•	•
	Serial debugger interface to 6833X BDM or MCORE OnCE debug connector	MMC14EBDI02	•		•	•	
MMC2114	Low-cost evaluation board	MMCEVB2114	•	•	•	•	•
	Serial debugger interface to 6833X BDM or MCORE OnCE debug connector	MMCCMB2114	•	•	•	•	•
		MMC14EBDI02	•		•	•	

Microcontroller Third Party Development Tool Partners

Company Name	HC05	HC08	HC11	HC12	HC16	World Wide Web URL	Email Address
Adapters							
Adapters.com	•	•	•	•	•	www.adapters.com	sales@adapters.com
Logical Systems Corp.		•	•			www.logicalsys.com	info@logicalsys.com
Assemblers							
Avocet Systems, Inc.	•	•	•	•	•	www.avocetsystems.com	sales@avocetsystems.com
Engineers Collaborative, Inc., The (TECI)	•		•			www.tec-l.com	sales@tec-l.com
Green Hills Software						www.ghs.com	sales@ghs.com
Metrowerks Corporation	•	•	•	•	•	www.metrowerks.com	info@metrowerks.com
IAR Systems	•		•	•	•	www.iar.se	info@iar.se
P&E Microcomputer Systems, Inc.	•	•	•	•	•	www.pemicro.com	pemicro@pemicro.com
TASKING						www.tasking.com	sales@tasking-us.com
Virtual Micro Design	•	•	•			www.vmdesign.com	info@vmdesign.com
BDM Support Tools							
Archimedes Software, Inc.					•	www.archimedessoftware.com	customer-service@archimedesinc.com
Axiom Mfg.				•		www.axman.com	Gary@ axman.com
Cosmic Software, Inc.				•	•	www.cosmic-software.com	info@cosmic-us.com
Wind River Systems						www.wrs.com	inquiries@windriver.com
Hitex Development Tools				•		www.hitex.com	info@hitex.com
Metrowerks Corporation				•	•	www.metrowerks.com	info@metrowerks.com
Agilent Technologies, Inc.						www.agilent.com	www.agilent.com
Nohau Corporation				•	•	www.nohau.com	sales@nohau.com
Avocet Systems, Inc.				•		www.avocetsystems.com	sales@avocetsystems.com
IAR Systems				•		www.iar.se	info@iar.se
iSYSTEM				•	•	www.isystem.com	emulators@isystem.com
Kevin W Ross				•		www.nwlink.com/~kevinro/products.html	kevinro@nwlink.com
Lauterbach, Inc.				•	•	www.lauterbach.com	info@lauterbach.com
Macraigor Systems LLC						www.macraigor.com	sales@macraigor.com
Microtek International, Inc.						www.microtek.com.tw/mice	mice@smtp.microtek.com.tw
Noral Micrologics, Inc.				•		www.noral.com/pages/bdmhc12.htm	www.noral.com/pages/moreinfo.htm
P&E Microcomputers, Inc.				•	•	www.pemicro.com	pemicro@pemicro.com
Sid Price's Software Tools				•		www.softtools.com/tools/	sales@softtools.com
TASKING						www.tasking.com	sales@tasking-us.com

Microcontroller Third Party Development Tool Partners (continued)

Company Name	HC05	HC08	HC11	HC12	HC16	World Wide Web URL	Email Address
Code Coverage Tools							
Ashling Microsystems, Ltd.	•	•	•	•		www.ashling.com	www.ashling.com/motocontact.html
Cosmic Software, Inc.	•	•	•	•	•	www.cosmic-software.com	info@cosmic-us.com
Wind River Systems						www.wrs.com	inquiries@windriver.com
Green Hills Software						www.ghs.com	sales@ghs.com
Hitex Development Tools	•	•	•	•		www.hitex.com	info@hitex.com
Metrowerks Corporation	•	•	•	•	•	www.metrowerks.com	info@metrowerks.com
iSYSTEM	•	•	•		•	www.isystem.com	emulators@isystem.com
TASKING						www.tasking.com	sales@tasking-us.com
Compilers							
Archimedes Software, Inc.	•	•	•	•	•	www.archimedessoftware.com	customer-service@archimedesinc.com
Avocet Systems, Inc.			•		•	www.avocetsystems.com/	sales@avocetsystems.com
Byte Craft Limited	•	•				www.bytecraft.com/c6805.html	info@bytecraft.com
ImageCraft Creations, Inc.		•	•	•	•	www.imagecraft.com/software	info@imagecraft.com
TASKING						www.tasking.com	sales@tasking-us.com
AppForge, Inc.						www.appforge.com	info@appforge.com
Cosmic Software, Inc.	•	•	•	•	•	www.cosmic-software.com	info@cosmic-us.com
Wind River Systems						www.wrs.com	inquiries@windriver.com
Green Hills Software						www.ghs.com	sales@ghs.com
Metrowerks Corporation	•	•	•	•	•	www.metrowerks.com	info@metrowerks.com
IAR Systems			•	•	•	www.iar.se	info@iar.se
Irvine Compiler Corporation						www.irvine.com/ppc.html	info@irvine.com
MCT Paul & Scherer GmbH						www.mct.net	sales@mct.de
Mekatronix, Inc.			•			www.mekatronix.com/	customer@mekatronix.com
Debuggers							
Ashling Microsystems, Ltd.	•	•	•	•	•	www.ashling.com/advice	www.ashling.com/advice/ motocontact.html
Avocet Systems, Inc.	•		•	•	•	www.avocetsystems.com	sales@avocetsystems.com
Cosmic Software, Inc.	•	•	•	•	•	www.cosmic-software.com	info@cosmic-us.com
Wind River Systems						www.wrs.com	inquiries@windriver.com
Green Hills Software						www.ghs.com	sales@ghs.com
Metrowerks Corporation	•	•	•	•	•	www.metrowerks.com	info@metrowerks.com

Microcontroller Third Party Development Tool Partners (continued)

Company Name	HC05	HC08	HC11	HC12	HC16	World Wide Web URL	Email Address
Debuggers (continued)							
IAR Systems			•	•	•	www.iar.se	info@iar.se
iSYSTEM	•	•	•	•	•	www.isystem.com	emulators@isystem.com
Lauterbach, Inc.	•	•	•	•	•	www.lauterbach.com	info@lauterbach.com
MCT Paul & Scherer GmbH						www.mct.net	sales@mct.de
Nohau Corporation				•		www.nohau.com	sales@nohau.com
Noral Micrologics, Inc.				•		www.noral.com/pages/bdmhc12.htm	www.noral.com/pages/moreinfo.htm
P&E Microcomputers, Inc.	•		•	•	•	www.pemicro.com	pemicro@pemicro.com
Sid Price's Software Tools	•		•	•		www.softtools.com/tools/	sales@softtools.com
TASKING						www.tasking.com	sales@tasking-us.com
Virtual Micro Design	•	•	•			www.vmdesign.com	info@vmdesign.com
Evaluation Boards							
Avnet Design Services		•				www.ads.avnet.com/evalkits.html	ads@avnet.com
Axiom Mfg.		•	•	•		www.axman.com	Gary@ axman.com
emWare		•				www.emware.com	sales@emware.com
Engineers Collaborative, Inc., The (TECI)	•		•			www.tec-l.com	sales@tec-l.com
ETAS, Inc.						www.etasinc.com	sales@etasinc.com
Kevin W Ross		•	•			www.nwlink.com/~kevinro/products.html	kevinro@nwlink.com
MCT Paul & Scherer GmbH		•				www.mct.net	sales@mct.de
Mekatronix, Inc.		•				www.mekatronix.com/	customer@mekatronix.com
Microtek International, Inc.						www.microtek.com.tw/mice	mice@smtp.microtek.com.tw
Noral Micrologics				•		www.noral.com/pages/bdmcfire.htm	www.noral.com/pages/moreinfo.htm
Oztechnics P/L	•		•			www.oztechnics.com.au	info@oztechnics.com.au
P&E Microcomputers, Inc.					•	www.pemicro.com	pemicro@pemicro.com
Fuzzy and Neuro Tools							
Aptronix, Inc.	•	•	•		•	www.aptronix.com/fide	sales@aptronix.com
Inform Software Corp.	•	•	•	•	•	www.fuzzytech.com	hotline@inform-ac.com
Code Generation Tools							
Aisys, Inc.	•	•				www.aisysinc.com	info@aisysinc.com
AppForge Software, LLC						www.appforge.com	info@appforge.com
ECS, Inc.						www.go-ecs.com	info-mcu@go-ecs.com
ETAS, Inc.				•		www.etasinc.com	sales@etasinc.com

Microcontroller Third Party Development Tool Partners (continued)

Company Name	HC05	HC08	HC11	HC12	HC16	World Wide Web URL	Email Address
In-Circuit Emulators (ICE)							
Ashling Microsystems, Ltd.	•	•	•	•	•	www.ashling.com/advice	www.ashling.com/advice/motocontact.html
Wind River Systems						www.wrs.com	inquiries@windriver.com
Engineers Collaborative Inc.,The (TECI)	•		•			www.tec-l.com	sales@tec-l.com
Hitex Development Tools	•	•	•	•		www.hitex.com	info@hitex.com
Avocet Systems, Inc.			•		•	www.avocetsystems.com	sales@avocetsystems.com
iSYSTEM	•	•	•	•		www.isystem.com	emulators@isystem.com
Lauterbach, Inc.	•	•	•	•	•	www.lauterbach.com	info@lauterbach.com
MetaLink Corporation	•		•			www.metaice.com	sales@metaice.com
Microtek International Inc.						www.microtek.com.tw/mice	mice@smtp.microtek.com.tw
Nohau Corporation			•		•	www.nohau.com	sales@nohau.com
Noral Micrologics, Inc.						www.noral.com/pages/bdmcfire.htm	www.noral.com/pages/moreinfo.htm
Logic Analyzers							
Corelis, Inc.						www.Corelis.com	sales@corelis.com
dli digital logic instruments			•	•	•	www.dli.de	sales@dli.de
Agilent Technologies, Inc.			•	•		www.agilent.com	www.agilent.com
iSYSTEM	•	•	•	•	•	www.isystem.com	emulators@isystem.com
Tektronix, Inc.			•	•	•	www.tek.com/Measurement/logic_analyzers/	
Performance Analysis Tools							
Ashling Microsystems, Ltd.	•	•	•	•		www.ashling.com	www.ashling.com/motocontact.html
Avocet Systems, Inc.			•		•	www.avocetsystems.com	sales@avocetsystems.com
Wind River Systems						www.wrs.com	inquiries@windriver.com
Green Hills Software						www.ghs.com	sales@ghs.com
Hitex Development Tools	•	•	•	•		www.hitex.com	info@hitex.com
iSYSTEM	•	•	•		•	www.isystem.com	emulators@isystem.com
Virtual Micro Design	•	•	•			www.vmdesign.com	info@vmdesign.com
Programmers							
BP Microsystems, Inc.	•	•	•	•	•	www.bpmicro.com	info@bpmicro.com
Data I/O Corp.	•	•	•		•	www.dataio.com	webmaster@dataio.com
Engineers Collaborative, Inc.,The (TECI)	•		•			www.tec-l.com	sales@tec-l.com
Metrowerks Corporation	•	•	•	•	•	www.metrowerks.com	info@metrowerks.com
Mekatronix, Inc.			•			www.mekatronix.com	customer@mekatronix.com

Microcontroller Third Party Development Tool Partners (continued)

Company Name	HC05	HC08	HC11	HC12	HC16	World Wide Web URL	Email Address
Programmers (continued)							
Noral Micrologics, Inc.				•		www.noral.com/pages/bdmhc12.htm	www.noral.com/pages/moreinfo.htm
P&E Microcomputer Systems, Inc.				•	•	www.pemicro.com	pemicro@pemicro.com
Phyton, Inc.	•			•		www.phyton.com	info@phyton.com
SMS GmbH	•	•	•	•		www.sms-sprint.com	info@sms-sprint.com
Real-Time Operating Systems (RTOS)							
Accelerated Technology Inc.			•		•	www.atinucleus.com	info@atinucleus.com
AppForge, Inc.						www.appforge.com	info@appforge.com
Avocet Systems, Inc.	•	•	•	•	•	www.avocetsystems.com/	sales@avocetsystems.com
CMX Systems, Inc.	•	•	•	•	•	www.cmx.com	cmx@cmx.com
OSE Systems, Inc.			•			www.enea.com	info@enea.com
ETAS Inc.				•		www.etasinc.com	sales@etasinc.com
Green Hills Software						www.ghs.com	sales@ghs.com
Metrowerks Corporation					•	www.metrowerks.com	info@metrowerks.com
KADAK Products, Ltd.						www.kadak.com	amxsales@kadak.com
Precise Software Technologies, Inc.						www.psti.com	info@psti.com
TASKING						www.tasking.com	sales@tasking-us.com
U S Software			•		•	www.ussw.com	sales@ussw.com
Simulation Tools							
Cosmic Software, Inc.	•	•	•	•	•	www.cosmic-software.com	info@cosmic-us.com
Wind River Systems						www.wrs.com	inquiries@windriver.com
Green Hills Software						www.ghs.com	sales@ghs.com
Metrowerks Corporation	•	•	•	•	•	www.metrowerks.com	info@metrowerks.com
Oztechnics P/L	•		•			www.oztechnics.com.au	info@oztechnics.com.au
P&E Microcomputer Systems, Inc.	•	•	•	•	•	www.pemicro.com	pemicro@pemicro.com
TASKING						www.tasking.com	sales@tasking-us.com
Virtual Micro Design	•	•	•			www.vmdesign.com	info@vmdesign.com

MICROCONTROLLERS (continued)
THIRD PARTY TOOLS (continued)

32-Bit Third Party Tools 683xx, MPC500, and MCORE

Company	68300	MPC500	MCORE	Web Address
Assemblers				
Avocet Systems, Inc.	•			www.avocetsystems.com
Green Hills Software	•	•	•	www.ghs.com
P&E Microcomputer Systems, Inc.	•			www.pemicro.com
Wind River Systems	•	•	•	www.wrs.com
Company	**68300**	**MPC500**	**MCORE**	**Web Address**
BDM Support Tools				
Avocet Systems, Inc.	•	•		www.avocetsystems.com
Cosmic Software	•			www.cosmic-software.com
Wind River Systems	•	•	•	www.wrs.com
Hitex Development Tools	•			www.hitex.com
Agilent Technologies, Inc.	•	•	•	www.agilent.com
iSystem	•		•	www.isystem.com
Lauterbach	•		•	www.lauterbach.com
Macraigor Systems LLC	•	•		www.macraigor.com
P&E Microcomputers, Inc.	•			www.pemicro.com
TASKING	•			www.tasking.com
Nohau Corporation	•			www.nohau.com
Company	**68300**	**MPC500**	**MCORE**	**Web Address**
Code Coverage Tools				
Ashling Microsystems		•		www.ashling.com
Cosmic Software	•			www.cosmic-software.com
Wind River Systems	•	•	•	www.wrs.com
Green Hills Software	•	•	•	www.ghs.com
Hitex Development Tools	•			www.hitex.com
iSystem	•	•		www.isystem.com
TASKING	•		•	www.tasking.com

32-Bit Third Party Tools 683xx, MPC500, and MCORE (continued)

Company	68300	MPC500	MCORE	Web Address
Compilers				
Avocet Systems, Inc.	•			www.avocetsystems.com
Byte Craft Limited			•	www.bytecraft.com
TASKING	•		•	www.tasking.com
Cosmic Software	•			www.cosmic-software.com
Wind River Systems	•	•	•	www.wrs.com
Green Hills Software	•	•	•	www.ghs.com
Company	**68300**	**MPC500**	**MCORE**	**Web Address**
Debuggers				
Ashling Microsystems	•			www.ashling.com
Avocet Systems, Inc.	•	•		www.avocetsystems.com
Wind River Systems	•	•	•	www.wrs.com
Green Hills Software	•	•	•	www.ghs.com
iSystem	•	•	•	www.isystem.com
Lauterbach	•	•	•	www.lauterbach.com
P&E Microcomputers, Inc.	•			www.pemicro.com
Company	**68300**	**MPC500**	**MCORE**	**Web Address**
Evaluation Boards				
Axiom Manufacturing		•	•	www.axman.com
Arrow	•	•	•	www.arrow.com
Avnet	•	•	•	www.avnet.com
Future	•	•	•	www.future.com
Company	**68300**	**MPC500**	**MCORE**	**Web Address**
In-Circuit Emulators				
Ashling Microsystems	•	•		www.ashling.com
Avocet Systems, Inc.	•	•		www.avocetsystems.com
Wind River Systems	•	•		www.wrs.com
Hitex Development Tools	•			www.hitex.com
iSystem	•	•		www.isystem.com
Lauterbach	•	•		www.lauterbach.com
Microtek International Inc.	•			www.microtek.com.tw/mice
Nohau Corporation	•			www.nohau.com

MICROCONTROLLERS (continued)
THIRD PARTY TOOLS (continued)

32-Bit Third Party Tools 683xx, MPC500, and MCORE (continued)

	68300	MPC500	MCORE	Web Address
Logic Analyzers				
Agilent Technologies, Inc.	•	•	•	www.agilent.com
iSystem	•			www.isystem.com
Tektronix	•	•	•	www.tek.com/measurement/logic_analyzers/
Company	**68300**	**MPC500**	**MCORE**	**Web Address**
Performance Analysis Tools				
Ashling Microsystems				www.ashling.com
Avocet Systems, Inc.	•	•		www.avocetsystems.com
Wind River Systems	•	•	•	www.wrs.com
Green Hills Software	•	•	•	www.ghs.com
iSystem	•	•		www.isystem.com
Company	**68300**	**MPC500**	**MCORE**	**Web Address**
Real-Time Operating Systems				
Accelerated Technology Inc.	•	•	•	www.atinucleus.com
Avocet Systems, Inc.	•	•		www.avocetsystems.com
Lineo	•	•	•	www.rtxc.com
ETAS	•	•		www.etasinc.com
Green Hills Software	•	•	•	www.ghs.com
Precise Software	•	•	•	www.psti.com
TASKING	•			www.tasking.com
U S Software	•	•		www.ussw.com
Wind River Systems				www.wrs.com
Company	**68300**	**MPC500**	**MCORE**	**Web Address**
Simulation Tools				
Wind River Systems	•		•	www.wrs.com
Green Hills Software	•	•	•	www.ghs.com
TASKING	•		•	www.tasking.com

PowerPC ISA — Metrowerks

Product	Description	Target Support	RTOS Support	Board Support	Host-Target Interface	Host Platforms	Language Support	Compiler Output Formats
CWEPPC	CodeWarrior for PowerPC ISA	MPC505, MPC509, MPC555, MPC821, MPC823, MPC850, MPC860, MPC8240, MPC8260, PPC603, PPC603ei, MPC7400	QNX Neutrino; RTXC from Lineo; Embedix SDK from Lineo, Precise MQX, ATI Nucleus		MetroTRK, Applied Microsystems CodeTAP, Applied Microsystems PowerTAP, Applied Microsystems WireTAP Run Control Interface (JTAG and BDM (8xx only), Macraigor Systems COP Raven (for MPC82xx and PPC6xx), Macraigor Systems BDM Raven (for MPC8xx, MPC5xx), Abatron BDI 2000 (5xx, 8xx)	Windows 95/98/2000/NT	C/C++, EC++, and PowerPC ISA, Assembly	ELF/DWARF 1.0; Motorola S-Record

HARDWARE TOOLS

Metrowerks

Product	Description	Target Board	Power Supply	Schematic	User Manual	Documentation	Interface Board
MPC823FADS	MPC823 FADS Board	•	•	•	•	•	
MPC850SRFADS	MPC850 FADS Board	•	•	•	•	•	
MPC8260ADS-P	MPC8260 FADS Board	•	•	•	•	•	
MPC860FADS	MPC860 FADS Board	•	•	•	•	•	
MPC860TFADS	MPC860 TFADS Board	•	•	•	•	•	

NETWORK AND COMMUNICATIONS PROCESSORS (continued)
SOFTWARE AND DEVELOPMENT TOOLS
C-PORT NETWORK PROCESSOR FAMILY DEVELOPMENT ENVIRONMENT
C-Ware Software Toolset (CST)

Part Number	Description	Additional Information
CSCC500	C-Ware Software Toolset annual support contract. Provides email and phone support, as well as online updates of the CST for a period of one year from date of purchase.	Note: The CST can be downloaded from the C-Port Family support site at motorola.cportcorp.com/support.
CSTC501W	C-Ware Software Toolset, web site download of *current* CST release (Windows or UNIX)	
CSTC501C	C-Ware Software Toolset, CD-ROM of *current* CST release for Microsoft Windows	
CSTC501D	C-Ware Software Toolset, CD-ROM of *current* CST release for Sun Solaris UNIX	
CSTC501X(Note)	C-Ware Software Toolset for C-Port Network Processor family, custom order (purchase order description should specify CST release number, web download or CD-ROM, and intended operating system. (For example, Microsoft Windows or Sun Solaris UNIX.)	

Note: Use this order number only if you want an archived CST release.

C-Ware Development System (CDS)

Part Number	Description	Status
Base System		
CDEV101A	CDS Base Unit (Chassis, Power Supply, Single Board Computer)	Available
CDEV501A	CDS Power Supply (additional or spare)	Available
Network Processing Modules		
CDEV201200A	C-5 Switch Module (C-5 NP v. D0 silicon, 200 MHz max operating frequency)	Discontinued
CDEV221200A	C-5 Switch Module (C-5 NP v. D0 silicon, external classifier support, 200 MHz max operating frequency	Available
Physical Interface Modules (PIMs)		
CDEV301A	10/100Ethernet PIM (16 10BASE-T/100BASE-T Ethernet ports)	Available
CDEV302A	Gigabit Ethernet PIM (2 ports of Gigabit Ethernet with 1000BASE-SX GBICs)	Available
CDEV304A	OC-12 PIM (4 OC-12 ports with SC optical connectors)	Available
CDEV305A	Combo 1 – Ethernet x OC-3 PIM (4 ports 10BASE-T/100BASE-T, 1 port Gigabit Ethernet with 1000BASE-SX GBIC, 4 ports OC-3 with MT-RJ connectors)	Available
CDEV306A	Combo 2 – Ethernet x OC-3 x OC-12 PIM (1 port Gigabit Ethernet with 1000BASE-SX GBIC, 4 ports OC-3 with MT-RJ connectors, 1 port OC-12 with SC optical connector)	Available

Note: Hardware Reference Designs for Switch Modules and PIMs are available on the C-Port Family support site at motorola.cportcorp.com/support.

MPC8xx and MPC82xx — Metrowerks

Product	Description	RTOS Support	Flex Cable	Serial Cable	Integrated Development Environment	CD ROM	User Manuals	Power Supply	Host Platforms	In-Circuit Simulator/ Programmer (Board)
CWDEVSYS823FADS	MPC823 Development System	QNX Neutrino; RTXC from Lineo; Embedix SDK from Lineo, Precise MQX, ATI Nucleus		•	4.2.1	•	•	•	Windows 95/98/2000/NT	
CWDEVSYS850FADS	MPC850 Development System	QNX Neutrino; RTXC from Lineo; Embedix SDK from Lineo, Precise MQX, ATI Nucleus		•	4.2.1	•	•	•	Windows 95/98/2000/NT	
CWDEVSYS860FADS	MPC860 Development System	QNX Neutrino; RTXC from Lineo; Embedix SDK from Lineo, Precise MQX, ATI Nucleus		•	4.2.1	•	•	•	Windows 95/98/2000/NT	
CWDEVSYS860TFADS	MPC860T Development System	QNX Neutrino; RTXC from Lineo; Embedix SDK from Lineo, Precise MQX, ATI Nucleus		•	4.2.1	•	•	•	Windows 95/98/2000/NT	
CWDEVSYS8260AMC	MPC8260 Development System	QNX Neutrino; RTXC from Lineo; Embedix SDK from Lineo, Precise MQX, ATI Nucleus		•	4.2.1	•	•	•	Windows 95/98/2000/NT	

CABLES AND HOST-TARGET INTERFACES

Metrowerks

Product	Description	Target Support	Connection Device	Power Supply
CWWIRETAPBDM	AMC's WireTAP Run Control Interface (BDM)		•	•
CWWIRETAPJTAG	AMC's WireTAP Run Control Interface (MPC6xx, 7xx, 82xx, 74xx)		•	•

Network Processor Alliances

Alliance	Description	Additional Information
SOFTWARE		
Wind River Systems	Tornado for Managed Switches (TMS) 2.0 integration with the C-Port Family development environment. C-5 Switch Support Package (C-5 SSP) available from Wind River.	www.windriver.com/products/html/manswitch.html
COPROCESSORS		
Corrent™	2Gbps+IPSec 7120 (Hurricane) security coprocessor interfacing with the C-Port C-5e NP, enabling fast path security solutions such as VPN.	www.corrent.com
Cypress®	Network Database Search Engines (CYNSE70032) and Cypress coprocessor (CYNCP80192) connecting via SRAM ZBT to the C-Port C-5 NP, delivering higher levels of search performance and throughput for mission critical applications.	www.cypress.com/products
PMC-Sierra™	PM2329 ClassiPI™ high performance, Layer 2–7, content processor interfacing with the C-Port C-5 NP, providing OC-48 rate classification. Software Development Kit available from PMC-Sierra.	www.pmcsierra.com/products/details/pm2329
Solidum	PAX.port™ 2500 classification processor interfacing with the C-Port C-5e NP, enabling multi-Gigabit processing (up to 2.5 Gbps).	www.solidum.com
FABRICS		
IBM™	PowerPRS (Packet Routing Switch) Fabric connecting through a UDASL interface to the C-Port C-5 NP, plus new versions of IBM PowerPRS connecting through CSIX L1 to the C-Port C-5e NP.	www-3.ibm.com/chips/products/wired/products/prsmodules.html
DESIGN SERVICES AND SOLUTIONS		
HCL	Expert design services for the C-Port Network Processor Family, including hardware design and embedded, networking and telecom software development.	www.hcltechnologies.com
Motorola® Computer Group	System solutions based on the C-Port Network Processor Family, including networking line cards using C-Port C-5 NPs inside the Packet Transport Platform.	mcg.motorola.com
Motorola India Electronics (MIEL)	Extensive experience in developing application software for the C-Port Network Processor Family and has developed key reference applications for the C-Ware Software Toolset (CST), such as aal2Switch, volpToVoAtmSwitch, switchRouter, and ATM Traffic Management.	1-512-996-4693

Chip Drivers

Business	Contact
Aisys Inc.	(800) 397-7922
Embedded Concepts and Solutions (ECS)	(630) 953-8676
Motorola	(512) 895-3823
Netplane Systems	(781) 329-3200
Precise Software Technologies Inc. (PSTI)	(800) 628-8631
SoftProse, Inc.	(515) 221-2220 (515) 988-4157
Target Technologies, Inc.	(978) 975-9919

Compilers and Code Generation Tools

Business	Contact
Aisys Inc.	(800) 397-7922
Avocet Systems, Inc.	(800) 448-8500
Green Hills Software	(805) 965-6044
HCL Technologies	(+91) 11-8-453-5071
Lauterbach	(508) 303-6812
Mentor Graphics	(408) 487-7000
MetaWare	(408) 429-6382
Metrowerks	(512) 997-4700
Micro APL	(+44) 171 922 8866
Microware	(515) 223-8000
Motorola India Electronics	(+91) 9844011816
RedHat Software	(888) 733-4281 (919) 547-0012
TASKING	(781) 320-9400
Wind River Systems	(510) 748-4100

Consultants

Business	Contact
JTAG Technologies B.V.	31 40 295 08 70
Integrated Systems Design Center	(619) 457-4545
LynuxWorks (was Integrated Software & Devices Corp.	(408) 383-9800
Nurun (was Informission Group)	(514) 951-5112
SoftProse, Inc.	(515) 221-2220 (515) 988-4157

Companion and Support Chips

Business	Contact
AMCC	(800) 840-6055
AMD Local sales offices	(800) 222-9323 (408) 749-5703
Broadcom	(949) 450-8700
Corrent	(480) 648-2300
Cypress	(408) 943-2600
Eureka Technology	(650) 960 3800
IBM Local sales offices	(800) IBM-4YOU
Motorola - Ethernet Transceivers	(602) 413-4026
PLX Technology (PLX)	(800) 759-3735
PMC-Sierra (was SwitchOn Networks)	(408) 586-6300
Rainbow Technologies	(800) 852-8569 (949) 450-7350
Solidum	(613) 724-6004
Southland Micro Systems, Inc.	(800) 255-4200
Tundra Semiconductor Corp.	(613) 592-0714

Debuggers

Business	Contact
Domain	(972) 578-1121
Green Hills Software	(805) 965-6044
Avocet Systems, Inc.	(800) 448-8500
Lauterbach	(508) 303-6812
Metrowerks	(512) 997-4700
Mentor Graphics	(408) 487-7000
RedHat Software	(888) 733-4281 / (919) 547-0012
TASKING	(781) 320-9400
Wind River Systems	(510) 748-4100

Design Services

Business	Contact
JTAG Technologies B.V.	31 40 295 08 70
LynuxWorks (was Integrated Software & Devices Corp.)	(408) 383-9800
SoftProse, Inc.	(515) 221-2220 (515) 988-4157
Wind River Systems	(510) 748-4100

Development Systems

Business	Contact
ASIC Designs	(630) 505-0404
ACT/Technico	(800) 445-6194
Analogue & Micro, Ltd. (8xx Dev Board)	+44(0)1633645980
Applied Microsytems	(800) 426-3925
Polycom (was Atlas Communication Engines, Inc.)	(805) 898-2450, ext. 111
Cogent Computer Systems	(508) 278-9400
DY 4 Systems	(613) 599-9191
Embedded Planet	(877) 468-6899
Metrowerks	(512) 997-4700
Motorola SPS	(800) 521-6274
Motorola Computer Group	(602) 732-6882
Radstone Technology	(800) 368-2738
TQ Components	(49) 8153 - 9308 - 0
Varisys Ltd.	01844 279595 (UK)
Wind River Systems	(510) 748-4100

DSP Algorithm Development

Business	Contact
Mathworks	(508) 647-7000

Emulators

Business	Contact
Agilent Technologies	(800) 452-4844
Applied Microsystems	(800) 426-3925 (425) 882-5276
Avocet Systems, Inc.	(800) 448-8500
Corelis	(562) 926-6727
EmuTec	(425) 267-9604
Lauterbach	(508) 303-6812
Macraigor Systems	(617) 739-8693
Wind River Systems	(510) 748-4100

Hardware Tools

Business	Contact
3M	(512) 984-3492
Agilent Technologies	(800) 452-4844
AMP	(910) 855-2276
Applied Microsystems	(800) 426-3925 (425) 882-5276
ASIC Designs	(630) 505-0404
Avocet Systems, Inc.	(800) 448-8500
Cogent Computer Systems (Adaptec)	(508) 278-9400
Corelis	(562) 926-6727
Digital Logic	+41 (0)326815800
DY 4 Systems	(613) 599-9191
Emulation Technology	(408) 982-0660
EmuTec	(425) 267-9604
Lauterbach	(508) 303-6812
Macraigor Systems	(617) 739-8693
Methode Electronics, Inc.	(800) 323-6858
Microtek International	(503) 533-4463 (800) 886-7333
Polycom (was Atlas Communication Engines, Inc.)	(805) 898-2450, ext. 111
Radstone Technology	(800) 368-2738
Smart Modular Technologies	(510) 623-1231
Tektronix	(800) 833-9200
V-I Computer	www.vicomputer.com
Vista Controls	(661) 257-4430
Wind River Systems	(510) 748-4100

Logic Analyzer Disassembler Support

Business	Contact
Agilent Technologies	(800) 452-4844
Corelis	(562) 926-6727
Digital Logic Instruments	(408) 487-3214
Tektronix	(800) 833-9200

Models

Business	Contact
Mentor Graphics	(408) 487-7000
Simpod, Inc.	(408) 330-9300
Innoveda (Summit Design & Viewlogic)	(503) 643-9281
Synopsys	(650) 584-5000

Network Software

Business	Contact
Accelerated Technology	(334) 661-5770
Applied Microsystems	(800) 426-3925 (425) 882-5276
BYTECODES mail@bytecodes.com	(512) 416-8787
Extended Systems (was Counterpoint Systems Foundry)	(800) 235-7576
Embedded Concepts and Solutions, Inc. (ECS)	(630) 953-8676
Grammar Engine	(800) 776-6423
IBM Local sales offices	(800) IBM-4YOU
InterNiche Technologies, Inc.	(408) 257-8014
Mentor Graphics	(408) 487-7000
Micro APL	(+44) 171 922 8866
Motorola Local sales offices	(800) 521-6274
Netplane Systems	(781) 329-3200
NetSilicon Softworks Group (was Pacific Softworks)	(800) 541-9508, ext. 117
Nortel Networks	(800) 466-7835
OSE Systems	(214) 346-9339
Precise Software Technologies Inc. (PSTI)	(800) 265-9833
Routerware (Now Wind River Systems)	(510) 748-4100
SoftProse, Inc.	(515) 221-222 (515) 988-4157
Spider Systems	(301) 907-0070
Sun Consumer Electronics Local sales offices	
Telenetworks	(707) 584-6100
Total Impact	(888) 373-3403 (805) 987-8704
Treck, Inc.	(800) 340-6648 (513) 688-0553
Trillium	(310) 442-9222
U.S. Software	(800) 356-7097 (503) 844-6614
Wind River Systems	(510) 748-4100

Real-Time Operating Systems

Business	Contact
Accelerated Technology	(334) 661-5770
Avocet Systems, Inc.	(800) 448-8500
CMX Systems	(508) 872-7675
Extended Systems (formerly Counterpoint Systems Foundry)	(800) 235-7576 USA and Canada (208) 322-7800 Outside the USA
Eonics	(714) 255-9889
Etno Team	
ESP	(612) 337-3000
Express Logic, Inc.	(858) 613-6640
Green Hills Software	(805) 965-6044
JMI Software Systems	(408) 287-7090
KADAK Products	(604) 734-2796
LynuxWorks	(408) 879-3900
Mentor Graphics	(408) 487-7000
Micro Digital, Inc.	(800) 366-2491 (714) 437-7333
Microware	(515) 223-8000
MontaVista Software	(408) 328-9200
OSE Systems	(214) 346-9339
Precise Software Technologies Inc. (PSTI)	(800) 265-9833
QNX Software Systems, Ltd.	+44 (0) 1223 204800
Sun Microsystems Local Sales Offices	(800) 555-9SUN
Tao Systems	(858) 793-1453
TASKING	(781) 320-9400
U.S. Software	(800) 356-7097 (503) 844-6614
Wind River Systems	(510) 748-4100

System Simulation Environment

Business	Contact
Cadence	(800) 746-6223
Mentor Graphics	(408) 487-7000
Synopsys	(650) 584-5000

Training

Business	Contact
ARNEWSH	(970) 223-1616
BlueLabs Stockholm AB	+46 (0) 8 470 2150
DSP Systems	(317) 274-4559
HILF! GmbH	+49 89 613 7900
Metrowerks	(512) 997-4700
PhoenixMicro	(602) 363-5066
Wind River Systems	(510) 748-4100

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Minato-ku
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ASIA/PACIFIC:
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2 Dai King Street
Tai Po Industrial Estate
Tai Po, N.T. Hong Kong
852-26668334

TECHNICAL INFORMATION CENTER:
1-800-521-6274

HOME PAGE:
http://www.motorola.com/semiconductors/

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